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                       UNITED STATES DISTRICT COURT
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            CENTRAL DISTRICT OF CALIFORNIA - WESTERN DIVISION
 3
         HONORABLE STANLEY BLUMENFELD, JR., U.S. DISTRICT JUDGE
 4
 5
    SANTA CLARITA VALLEY WATER AGENCY,
 6
                        Plaintiff,
 7
                                                      Case No.
         v.
                                               CV 18-6825 SB (RAOx)
 8
    WHITTAKER CORPORATION, et al.,
                                                      Volume 16
 9
                        Defendants.
                                               (Pages 1754 - 1907)
10
11
               REPORTER'S TRANSCRIPT OF TRIAL PROCEEDINGS
                        TRIAL DAY 9: A.M. SESSION
12
                       WEDNESDAY, DECEMBER 1, 2021
                                 8:29 A.M.
                         LOS ANGELES, CALIFORNIA
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              MYRA L. PONCE, CSR 11544, CRR, RPR, RMR, RDR
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25
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	1	WEDNESDAY, DECEMBER 1, 2021; 8:29 A.M.
	2	LOS ANGELES, CALIFORNIA
	3	-000-
	4	(Out of the presence of the jury:)
08:29AM	5	THE COURTROOM DEPUTY: Calling Item No. 2, Case
	6	No. CV 18-06825-SB, Santa Clarita Valley Water Agency versus
	7	Whittaker Corporation.
	8	Counsel, please state your appearances starting with
	9	plaintiff's counsel.
08:30AM	10	MR. RICHARD: Good morning. Patrick Richard for
	11	plaintiff. With me today is Ms. McGuane, Mr. Gee, and
	12	Ms. Micevych.
	13	MR. BLUM: Good morning, Your Honor. Fred Blum for
	14	defendant. With me is Mr. Trowbridge, Mr. Gallagher, as well
08:30AM	15	as Mr. Fryer. Mr. Lardiere will be here later this morning.
	16	THE COURT: Very well.
	17	Good morning, everyone. Please be seated.
	18	We are outside the presence of the jury, and I
	19	believe we're waiting on a couple of jurors, and we'll get
08:30AM	20	started as soon as we can.
	21	In the meantime, I did want to provide the Court
	22	with the the parties, rather, with the Court's ruling on
	23	Ms. Durant's deposition. And there were a number of
	24	objections, and I'm simply going to give you the Court's ruling
08:30AM	25	so that you can properly prepare for the presentation of this

	1	evidence.
	2	So I'll just indicate the page and line numbers and
	3	the ruling:
	4	29:13 to 30:25, the objection is overruled.
08:31AM	5	31:3 to 31:5, the objection is sustained.
	6	Same ruling, sustained for 31:22 to 32:23.
	7	Same ruling, sustained for 50:8 to 50:24.
	8	And sustained for 103:18 to 104:8.
	9	I'm now moving to the disputed exhibits for
08:32AM	10	Benjamin Lechler. And my interpretation, since I have a binder
	11	that only has four exhibits, is that there are only objections
	12	to these four exhibits. And otherwise, the exhibits are not
	13	going to be able to be used consistent with the Court's
	14	direction to the parties previously.
08:32AM	15	MR. BLUM: Your Honor, I believe the other exhibits
	16	have been agreed to.
	17	THE COURT: I'm sorry?
	18	MR. BLUM: I believe the other exhibits we intend to
	19	use have been agreed to.
08:32AM	20	THE COURT: That's perfectly fine. And I perhaps
	21	misstated what I intended. I assumed that I have the the
	22	only ones that I have are the ones that are challenged. All I
	23	mean to suggest is, if you've given me four and there are eight
	24	that are challenged, you wouldn't be able to use the four. To
08:33AM	25	the extent that I have the universe when I say you wouldn't

```
1
            be able to use, just not at this time until I've had an
         2
             opportunity to review them.
                                  Yes, Your Honor.
         3
                        MR. BLUM:
         4
                        THE COURT: But that's an academic point it sounds
                    The parties only have four challenged documents.
08:33AM
         5
         6
                        MR. BLUM:
                                   That's -- that is my understanding,
         7
            Your Honor.
         8
                        THE COURT: All right. So with that, I'm just going
         9
             to give you the benefit of the Court's tentative thinking, but
            as has been true throughout this trial, the parties need to
08:33AM
        10
        11
            make the objections contemporaneously after an appropriate
        12
             foundation has been laid.
        13
                        And so at least tentatively, if an appropriate
             foundation and the like -- I don't limit it to foundation.
        14
                                                                          Ιf
08:33AM
        15
             everything necessary to introduce these exhibits are provided
             at trial, the Court likely will overrule the objections on the
        16
        17
             grounds stated, and that applies to all four of these exhibits.
        18
                        What I'm generally finding -- and -- is this you,
        19
            Mr. Gee?
08:34AM
        20
                        MR. GEE: Yes, it is, Your Honor.
        21
                        THE COURT: Is that -- and we're nearing the end,
        22
            but just to give you at least the benefit of the Court's
        23
             thought process -- is that you're objecting to a lot of things
        24
             that really go to the weight where you have an argument about
        25
            why it doesn't necessarily mean what it means or shouldn't be
08:34AM
```

1 construed in the way it's being offered. A lot of that really 2 just goes to the weight. It's not a question of admissibility. 3 And so you probably have been noticing my tentative 4 thoughts have gone a lot that way, and that has been the Court's thought process. Okay? 08:34AM 5 6 MR. GEE: Yes. 7 THE COURT: All right. Is there anything else that 8 the Court needs to address? We still have jury instructions, of course, and the JMOL still is pending. But is there anything for purposes of the witnesses who will be testifying 08:35AM 10 11 that the Court needs to address that I have not? Let me 12 start -- I'm going to start with the plaintiff, please, Mr. Richard. 13 MR. RICHARD: Yes. In our rebuttal case, we 14 identified -- I think it's 7 minutes and 20 seconds of Mr. Daus 08:35AM 15 who was their 30(b)(6) witness who I understood up until Sunday 16 17 they would be calling live. So we've designated a portion of 18 that. We've just received counter-designations. There's going 19 to be an issue because those designations go well beyond 08:35AM 20 completeness. And so he's their witness. If they want to call 21 him, they can call him live. But to have a bunch of hearsay 22 that they want to play from this long deposition, I haven't had 23 a chance to further meet and confer, but that's my position. 2.4 think that's a correct statement of the law. 25 08:35AM Other than that, that's in our rebuttal case, so we

```
1
            won't get to that this morning for sure.
         2
                        THE COURT: All right. And where is that currently
         3
            physically? Do I have the designations and cross-designations?
                        MR. RICHARD: I don't know if Your Honor has the
         4
            cross-designations. I believe binders have or will be
08:36AM
         5
         6
            delivered of all of that. I would assume that it's going to be
         7
            at the 10:30 break, Your Honor, that we'll sort that out.
         8
                        THE COURT: All right. Mr. Blum or -- yes?
         9
                                  Your Honor, oh, I'm sorry.
                        MR. BLUM:
08:36AM
        10
                        MR. GALLAGHER:
                                        You can.
        11
                        MR. BLUM: We believe we can work it out. We agree
        12
            that we could only designate for completeness. That's not at
        13
            issue. We'll just -- ten minutes we can resolve it.
                        I have a logistical question, Your Honor. We've
        14
08:36AM
        15
            agreed on the -- what needs to be read from the three
            depositions. My preference is to have Mr. Fryer on the witness
        16
        17
            stand and Mr. Trowbridge read question, answer, question,
        18
            answer. Is that okay with the Court?
        19
                        THE COURT: Yes. This is in the instance where we
08:36AM
        20
            just have the transcript?
        21
                        MR. BLUM: Yes, sir.
        22
                        THE COURT: That's fine.
        23
                        MR. BLUM: All right. Thank you.
        24
                        THE COURT: And the jury is now all here. So it
        25
08:37AM
            will just be a moment, but they should be coming in shortly.
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	1	MR. BLUM: Your Honor, there is one issue that
	2	never mind. We might see if we can resolve it first.
	3	THE COURT: All right.
	4	And do we have Mr. Simpson?
08:38AM	5	MR. GALLAGHER: We do.
	6	THE COURT: Let's please have him resume the witness
	7	stand.
	8	MR. BLUM: Your Honor, does the Court have a problem
	9	if I absence myself during Mr. Simpson's testimony?
08:38AM	10	THE COURT: I do not.
	11	(In the presence of the jury:)
	12	THE COURT: We remain on the record in Santa Clarita
	13	Valley Water Agency versus Whittaker Corporation. We are now
	14	joined by the jury.
08:39AM	15	Good morning, ladies and gentlemen.
	16	THE JURY: Good morning.
	17	THE COURT: And you may recall, we are still in the
	18	defense case, and Mr. Simpson was testifying in direct.
	19	And so, Mr. Simpson, if you would kindly resume the
08:39AM	20	witness stand.
	21	Good morning. And please be seated.
	22	You are not going to be sworn in again because you
	23	have previously been sworn, but you do understand that you
	24	continue to testify under oath?
08:39AM	25	THE WITNESS: I do, yes.

	1	THE COURT: All right. And please make sure that
	2	
		you do what you were doing yesterday which is please speak into
	3	the microphone so that everyone is able to clearly hear you.
	4	And, Mr. Gallagher, as soon as Mr. Simpson is
08:39AM	5	ready give him a moment you may proceed.
	6	MR. GALLAGHER: Thank you, Your Honor.
	7	THE WITNESS: I'm ready, thank you.
	8	TIMOTHY SIMPSON,
	9	DEFENDANT'S WITNESS, PREVIOUSLY SWORN, TESTIFIED AS FOLLOWS:
08:40AM	10	DIRECT EXAMINATION (RESUMED)
	11	BY MR. GALLAGHER:
	12	Q. Mr. Simpson, yesterday we were, I think, delving
	13	into the DDW permitting situation. Before we get into that, I
	14	wanted to make sure, because it was getting late in the day
08:40AM	15	yesterday, going back to the 205 notice.
	16	Do you recall that conversation?
	17	A. I do.
	18	Q. Okay. And I just want to make it clear, the notice,
	19	as you understand it, was provided to Whittaker and
08:40AM	20	Mr. Lardiere; correct?
	21	A. Yes.
	22	Q. Now, did Mr. Lardiere instruct you to respond on
	23	Whittaker's behalf, if you know?
	24	A. He did. He asked
08:40AM	25	MR. RICHARD: Objection, Your Honor. Hearsay.

	1	THE COURT: I'm going to overrule the objection but
	2	limit its relevance.
	3	You're not to take this for the truth of the matter
	4	but just in terms of the actions, if any, that were taken based
08:40AM	5	upon what you're going to be hearing.
	6	Go ahead.
	7	Q. (BY MR. GALLAGHER:) You may answer.
	8	A. Yes. Mr. Lardiere asked us to prepare a written
	9	response to the notice of perchlorate detections at 205.
08:40AM	10	Q. And did you do that?
	11	A. We tried. We as I think I testified yesterday,
	12	our our hope was that the operation of 201, Well 201, which
	13	is upgradient of 205, would be sufficient to protect
	14	Well V-205. And we were awaiting the results of a containment
08:41AM	15	study by Castaic Lake's consultant
	16	Q. Castaic Lake now being the agency; correct?
	17	A. Yeah, the water agency's consultant on the
	18	sufficiency of the hydraulic capture at 201. We had just put
	19	that well into service, and we were waiting to see that the
08:41AM	20	benefit at the 205 well, whether that would be sufficient to
	21	contain the perchlorate plume.
	22	Q. And the containment study would help you assist
	23	in making that determination?
	24	A. That's correct.
08:42AM	25	Q. And did you ever receive that containment study?

1 It -- it was a -- we finally received it but only Α. 2 after the litigation -- after the lawsuit was filed. 3 something -- it was a topic of our monthly meetings. And they 4 would ask us, What is your response to 205? And did you, in your technical meetings, advise the 08:42AM 5 6 agency and its consultants of your request that you were 7 waiting for this containment study before you could respond to the 205 notice? 8 Indeed, I did. It was something that we would Α. request at every meeting. They would ask about 205. We'd say 08:42AM 10 11 we need the containment study so we can really evaluate what 12 the state of capture is. And -- and it kept being promised. 13 It kept being delayed. And only after litigation -- the 14 litigation was filed were we able to receive that report. 08:43AM 15 Q. Thank you. Back to the discussion where we left off last night, 16 17 the DDW permitting status for 201. Do you recall that? 18 started getting into it. 19 I do. Α. 08:43AM 20 Q. Okay. And what's your understanding, prior to this 21 litigation, of the status of that DDW permitting process as it related to 201? 22 23 Α. Well, documents had been submitted to DDW by the 24 water agency's consultants, and there was back-and-forth about 25 various technical items. We did not have a seat at the table 08:43AM

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1
             in those discussions. We were not copied on correspondence
         2
            between the water agency and DDW. So we were a bit -- well, we
         3
            were very much out of the loop on that.
                        THE COURT: Let me stop you and -- I don't think
         4
             there's a foundation for a lot of this. So you're going to
08:43AM
         5
            have to make sure that you establish a foundation before asking
         6
         7
            him about the process. He's now repeatedly stated they didn't
            have a seat at the table.
         8
                        (BY MR. GALLAGHER:) Okay. So how were you
                  Ο.
             involved, if at all, in the DDW permitting process? How do you
08:44AM
        10
        11
            have any knowledge about what the status is?
        12
                        Well, what we learned from the technical meetings --
                  Α.
             again, it was another agenda item. In every meeting we had the
        13
             status of permitting, and -- and the technical folks from the
        14
08:44AM
        15
            water agency would report on the status.
        16
                        And why is that relevant to V-201, just if you can
                  0.
        17
             explain?
        18
                        Well, certainly --
                  Α.
        19
                        MR. RICHARD: Objection. Vague, Your Honor.
08:44AM
        20
                        THE COURT: Sustained.
        21
                  0.
                        (BY MR. GALLAGHER:) Why is it relevant to the V-201
        22
            wellhead treatment in this containment effort?
                        MR. RICHARD: I'm not sure what the "it" is.
        23
        24
            Objection, vague.
        25
08:44AM
                        THE COURT: It is vaque.
```

	1	Q. (BY MR. GALLAGHER:) Why is this permitting process
	2	important to the V-201 wellhead treatment containment effort?
	3	A. So the original intent of putting wellhead treatment
	4	at 201 was, first, to provide containment and, second, to
08:45AM	5	restore water supply. And so
	6	Q. How were you involved in this process, you know, in
	7	terms of the wellhead treatment, the permitting process, and
	8	getting this well back online for containment and potable
	9	water?
08:45AM	10	A. Well, there's a lot there in that question.
	11	So we were involved in the actual implementation of
	12	wellhead treatment at 201. We worked with the agency to to
	13	implement, to to make that happen and to get the tanks
	14	installed as quickly as possible to restore water supply. We
08:46AM	15	were very motivated. We saw the need to get 201 operating as
	16	quickly as possible to provide protection for downgradient
	17	wells.
	18	THE COURT: I'm going to stop you. The question was
	19	very general, and so this is now a narrative.
08:46AM	20	BY MR. GALLAGHER: Okay. I'll hone in on it.
	21	Q. (BY MR. GALLAGHER:) So in terms of not having a
	22	seat at the table, did you mean well, what did you mean by
	23	that with respect to the permitting process?
	24	A. Sorry if I confused you.
08:46AM	25	Only in regards to the permitting, you know, the

1 discussions with DDW. We were not involved in the actual, you 2 know -- I'm sorry, preparing the documents needed to obtain the 3 permit to operate that well for potable purposes. In your technical meetings, did you have any 4 Ο. discussions with the agency and/or its consultants about what 08:46AM 5 6 was being done, being prepared as part of this permitting 7 process? We were told that -- that they were either waiting 8 Α. 9 for comments back from DDW or that we are in the process of updating our documents to resubmit to DDW. So we were -- we 08:47AM 10 11 were told that the process was ongoing. 12 Q. And were you ever told what the nature of those 13 discussions were between the agency, its consultants, and the 14 DDM3 08:47AM 15 Well, these are -- these are fairly involved There's a lot to them. And we didn't know the 16 17 particulars as to what was -- what issues were at hand in terms 18 of additional information that DDW was requesting. 19 Did the agency or its consultants ever articulate to 08:47AM 20 you what the concerns were with the DDW and this permitting 21 process? 22 They told us that there were concerns about VOCs 23 in -- in the water and in the -- the water extracted from the 2.4 wells and that that was something that they had to deal with. 25 And do you have an understanding of how the agency 08:48AM Ο.

	1	was responding to those concerns?
	2	MR. RICHARD: Objection. Lacks foundation,
	3	Your Honor.
	4	THE COURT: Sustained.
08:48AM	5	Q. (BY MR. GALLAGHER:) Did you have any conversations
	6	with the agency or the technical folks about how they were
	7	going to address those concerns raised by the agency?
	8	MR. RICHARD: I think that misstates the testimony,
	9	Your Honor. Objection.
08:48AM	10	THE COURT: Overruled.
	11	You can answer. Did you have such discussions with
	12	the agency representatives?
	13	THE WITNESS: They they did tell us that VOCs
	14	were a concern and that they were trying to address that
08:48AM	15	concern. There was no mention of installing treatment for
	16	VOCs, that that they were addressing it through their MCL
	17	equivalent calculations. They did tell us that.
	18	Q. (BY MR. GALLAGHER:) And do you have an
	19	understanding in your conversations with the agency what that
08:49AM	20	meant, how are they dealing with it through the MCL equivalency
	21	calculations?
	22	A. There was some back-and-forth, we were told, by the
	23	agency representatives that that they had to redo the MCL
	24	calculations. And the results of those revised calculations,
08:49AM	25	when they account for some of the naturally occurring

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1
             contaminants -- and I think the other two contaminants were
         2
            hexavalent chrom and uranium, the MCL calculation was below 1.
                        THE COURT: Did you say hexavalent chrom?
         3
         4
                        THE WITNESS: I did, yes, hexavalent chrom.
                        (BY MR. GALLAGHER:) And do you have an
08:49AM
         5
                  0.
         6
            understanding of the significance of the MCL equivalency being
         7
            below 1?
         8
                  Α.
                        It -- it means that the -- if the MCL equivalent is
            below 1, it means that a treatment for --
                                    I'm going to have you ask him another
08:50AM
        10
                        THE COURT:
        11
             question because now it's not clear whether he's reporting his
        12
             own knowledge as opposed to what he was being told, which is
        13
             the subject of this discussion.
        14
                        (BY MR. GALLAGHER:) Did you ever have a discussion
08:50AM
        15
            with the agency and/or its representatives as to the
        16
             significance of the MCL equivalency being -- that number being
            below 1?
        17
        18
                        MR. RICHARD: Your Honor, I'm just going to raise a
            relevance objection in light of the permit not having issued to
        19
08:50AM
        20
             this whole line at this point.
        21
                        THE COURT: Overruled.
        22
                        You can answer that question. And please make sure
        23
             that you have a recollection, if so, of a specific
        2.4
             conversation.
        25
                        THE WITNESS: I -- I have a general knowledge that
08:50AM
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1
             the -- just in my profession as a consulting engineer.
         2
                        THE COURT: All right. That's not the question.
                        Ask another question, please.
         3
                        (BY MR. GALLAGHER:) Backtracking a little bit,
         4
                  Ο.
             after -- I believe you testified earlier that the wellhead
08:51AM
         5
         6
             treatment at 201 was installed and 201 was back online in
         7
             approximately 2017. Is that accurate?
                        That's correct.
         8
                  Α.
                        Okay. And between 2017 and to date, do you have an
                  0.
            understanding that the permitting process is still ongoing?
08:51AM
        10
        11
                  Α.
                        Yes. That's correct.
        12
                        Okay. And in your -- and you had conversations
                  Q.
             about the status of this permitting process during these
        13
        14
             technical meetings with the agency and its consultants. Is
             that fair?
08:51AM
        15
        16
                  Α.
                        That's correct.
        17
                        Do you have an understanding, based on those
        18
             technical meetings, what the cause or the reason for the delay
             is in issuing the permit based on your conversations with the
        19
08:51AM
        20
             agency and its technical folks?
        21
                  Α.
                        As I said earlier, these are involved permits.
        22
             technical reports that are needed to support the -- the
        23
            permit -- issuing the permit are involved. And I'm not aware
        2.4
             of the particular comments from DDW that had to be responded
        25
             to.
08:52AM
```

	1	Q. Did you take any efforts on your own on behalf of
	2	Whittaker to make contact with the DDW to find out for yourself
	3	what the status is of the permitting process?
	4	A. I I did.
08:52AM	5	Q. Okay. And did you talk to anybody at the agency in
	6	particular to find out what the status is of the permitting
	7	process?
	8	A. I I did.
	9	MR. RICHARD: I'm just vague as to "agency." I'm
08:52AM	10	not sure he's talking about the water agency or the state
	11	agency.
	12	THE COURT: Sustained.
	13	MR. GALLAGHER: I apologize. I'll clear that up.
	14	Q. (BY MR. GALLAGHER:) When I asked that if you
08:52AM	15	took it upon yourself to talk to anybody at the agency, I meant
	16	the DDW. Did you take it upon yourself to speak with the DDW
	17	to find out the status of the permitting process?
	18	A. I did.
	19	Q. Okay. And did you speak to anybody in particular at
08:52AM	20	the DDW regarding the status of the permitting process?
	21	A. I spoke to Bill Lang of DDW.
	22	Q. And as you sit here today, do you have an
	23	understanding as to what the delay is in the status of issuing
	24	this permit for V-201?
08:53AM	25	A. As of last week when I talked to Mr. Lang, I was

```
1
             told that they're still awaiting documents --
         2
                        THE COURT: Hold on, please.
                        MR. RICHARD: Hearsay, Your Honor.
         3
                        THE COURT: Sustained. Sustained.
         4
                        (BY MR. GALLAGHER:) Not going into the specifics of
08:53AM
         5
                  Ο.
         6
             the conversation, do you have an understanding, as you sit
         7
            here, as to the delay in issuing the DDW -- excuse me --
             issuing the 201 permit by the DDW?
         8
                  Α.
                        It's my understanding that DDW is still waiting for
             documents from the water agency.
08:53AM
        10
        11
                        Do you have any understanding, as you sit here
        12
             today, based on those conversations, whether or not the VOCs
        13
             are the holdup or cause for why the V-201 permit has not been
        14
             issued?
08:53AM
        15
                  Α.
                        They are not.
        16
                  Q.
                        Okay. Switching gears.
        17
                        Your history with the Whittaker-Bermite site, as you
        18
             sit here today, it involves dealing with aspects of the onsite
             and offsite remedy, does it not?
        19
08:54AM
        20
                  Α.
                        It does.
        21
                        Okay. And I believe we testified -- you testified
                  0.
        22
             yesterday a little bit about the OUs involved. Do you remember
        23
             that?
        24
                        I don't remember, but I'm -- I'm aware of the -- of
        25
            the seven OUs at the site.
08:54AM
```

	1	Q. Okay. And can you generally describe the OUs that
	2	pertain to onsite versus offsite?
	3	A. Well, OUs 1 through 6 are onsite, and OU-7 is
	4	groundwater. And groundwater is onsite and offsite. So OU-7
08:54AM	5	extends to the extent of the plume.
	6	Q. Okay. And for the onsite OUs 1 through 6, did the
	7	remedy involve both soil and groundwater treatment?
	8	A. It did, yes.
	9	Q. And for the OU-7 what's the status of that
08:55AM	10	remedy, if you will?
	11	A. So there is a remedial action plan we call it a
	12	RAP for offsite groundwater, and that has been approved by
	13	Department of Toxic Substances Control, DTSC. It's a state
	14	agency. And the strategy for offsite groundwater is is the
08:55AM	15	containment achieved through these production wells.
	16	Q. As part of the OU-7 RAP, are monitoring wells
	17	discussed?
	18	A. They are.
	19	Q. Okay. And do you have an understanding of what the
08:55AM	20	current status of the discussion of monitoring wells is?
	21	MR. RICHARD: Objection. Vague, Your Honor.
	22	THE COURT: Sustained.
	23	Q. (BY MR. GALLAGHER:) Monitoring wells, are they a
	24	part of the RAP for OU-7?
08:56AM	25	A. They are, yes.

	1	Q. And can you describe for us what the process is of
	2	deciding whether or not monitoring wells should be installed as
	3	part of the OU-7 RAP?
	4	THE COURT: Are you asking historically what
08:56AM	5	occurred since or are you asking what's going to occur?
	6	MR. GALLAGHER: I'm asking what's currently his
	7	understanding.
	8	THE COURT: So you're asking him the extent to which
	9	monitoring wells have been installed as part of the OU-7 RAP?
08:56AM	10	MR. GALLAGHER: And the plan, if any, for future
	11	monitoring wells and what that process is.
	12	THE COURT: Why don't you break that down into two
	13	parts. Monitoring wells that currently have been installed
	14	pursuant to the RAP and then, next, future monitoring wells.
08:56AM	15	THE WITNESS: Okay. So there are a number of
	16	monitoring wells, offsite monitoring wells. There's many
	17	onsite monitoring wells, and there are offsite monitoring wells
	18	that were installed in consultation with Department of Toxic
	19	Substances Control, with their approval. And there are also
08:57AM	20	what we would call sentry wells, and the sentry wells are
	21	located upgradient of the production wells, intended to be
	22	early warning signs.
	23	You don't want your production well to be the first
	24	time you see a contaminant that you weren't aware of. So you
08:57AM	25	put these these monitoring wells upgradient so that you have

1 an idea of what would be eventually drawn into the production 2 well. (BY MR. GALLAGHER:) So -- so for moving forward, 3 Q. if -- is there a process in connection with this RAP and OU-7 4 if there is a need or a suggestion that additional monitoring 08:57AM 5 6 wells are needed? Is there a process for deciding whether that 7 should happen? There is. Well, first of all, there is a very 8 Α. significant effort in monitoring these wells, the onsite wells 10 and the offsite wells. And Whittaker actually works with the 08:58AM 11 water agency and -- and coordinates those efforts. 12 So if --Q. 13 And it's also an adaptive management where you learn from the data and you -- from there, you decide if additional 14 08:58AM 15 monitoring wells are needed. 16 So if there's a suggestion or recommendation or Ο. 17 request by anybody that additional monitoring wells or a well 18 is needed, what is that process? How -- what's involved in 19 that process? 08:58AM 20 Α. Well, this is a public process. You know, all of 21 the -- the, um -- the work that's done at the Bermite site and 22 for OU-7 is a public process. And the public is -- is able to 23 comment on -- on the various reports, and there's also -- I 24 would call the public process for this project sort of public 25 participation on steroids because they -- they have these 08:59AM

1 multi-jurisdictional task force meetings that are held -- that 2 were held monthly for a while. With COVID, it certainly has 3 tapered -- tapered down. So, for example, if the agency wanted to request --4 excuse me -- an additional monitoring well or ten monitoring 08:59AM 5 6 wells, is there a process by which it could go through to 7 request that of the DTSC in connection with this OU-7 route? They could. They certainly have an audience with 8 Α. DTSC at these multi-jurisdictional task force meetings. agency participates, as does DTSC. So that would be the forum 08:59AM 10 11 if there was a concern about the sufficiency of the monitoring 12 well network to make those concerns -- to make DTSC aware of those concerns. 13 14 And as you sit here today, have you participated in any of those discussions with the DTSC about the need for 09:00AM 15 16 additional monitoring wells or any activity as it relates to OU-7?17 18 I do not participate in the multi-jurisdictional Α. task force meetings. My colleague, Dr. Amini, does. But DTSC 19 09:00AM 20 does participate in our monthly technical meetings, and they 21 have not brought up concerns about the sufficiency of the 22 monitoring well network. 23 And "they" being the agency? 24 Department of Toxic Substances Control, that's 25 correct. 09:00AM

```
1
                        Now, going back to 201 for a minute. As you
                  Q.
         2
             mentioned, the well is online, it has wellhead treatment, and
         3
             is treating for perchlorate; correct?
                        That's correct.
         4
                  Α.
                        And there's no permit --
09:00AM
         5
                  0.
         6
                  Α.
                        Hold on.
                                  I'm sorry.
         7
                  Q.
                        Sorry.
                        I answered too quickly. It is a -- it is able to
         8
                  Α.
         9
             treat water, but it's my understanding it's currently not
             operating. It's been shut down for about the last three months
09:01AM
        10
        11
             for -- for maintenance.
        12
                  Q.
                        And prior to that, was it treating water from the
        13
             Saugus --
        14
                  Α.
                        It was.
09:01AM
        15
                  Q.
                        -- for perchlorate? Sorry.
                        Because the -- the water agency does not have a
        16
        17
             permit, what does it do with the water after it's treated, if
        18
             you know?
                        I do. The water is, um -- is discharged to a local
        19
                  Α.
09:01AM
        20
             storm drain where it eventually goes to the Santa Clara River.
        21
             And so the water is basically discharged to surface water
        22
             with -- under authorization with what they call NPDES permit,
        23
             National Pollutant Discharge Elimination System permit, that
        2.4
             allows them to discharge to surface water.
        25
                        And in order to meet the discharge limits of that
09:02AM
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1 permit, the water has to be dechlorinated and -- I'm sorry. 2 has to be blended. And -- and because it's being blended with 3 treated surface water, the surface water contains chlorine, and they have to dechlorinate that in order to discharge. And the 4 reason they're blending that water is because the natural 09:02AM 5 6 sulfate concentrations are above the discharge standards. 7 Does the NPDES or NPDES permit require the agency to Ο. treat the water before it's discharged to the river for VOCs? 8 Α. No, it does not. Let's turn to your opinions. 09:02AM 10 Ο. 11 So you're also retained as an expert in this matter. 12 You understand that; right? Α. I do. 13 Okay. And can you tell us, generally speaking, the 14 09:03AM 15 scope of that retention, what you were asked to do? 16 I was asked to prepare a rebuttal report to Α. 17 Dr. Najm's cost estimate for VOC treatment and perchlorate 18 treatment at Saugus 1 and 2 wells, V-201, and V-205. And 19 specifically, I was asked to assume that VOC treatment would be 09:03AM 20 needed at Saugus 1 and 2 and 201 and to come up with a cost 21 estimate to do that. And then for 205, I was asked to assume 22 that treatment for both perchlorate and VOCs would be required 23 and to come up with a cost estimate to do that. 24 Q. Now, you said you assumed treatment would be 25 required. You were asked to assume treatment would be required 09:04AM

1 for VOCs; correct? 2 Α. That's correct. As you sit here today, do you have any -- what's 3 Q. your opinion on whether or not the treatment will even be 4 needed for VOCs? 09:04AM 5 6 Well, that -- that's my first opinion, is that 7 Dr. Najm assumes that VOC treatment is needed at the -- you know, for Saugus 1 and 2, for V-201 and 205. And there is no 8 regulatory requirement to install treatment for VOCs at any of 10 those wells. 09:04AM 11 As part of your analysis into those costs, what did 12 you do to prepare your opinions to rebut Mr. Najm's estimates? 13 Α. So to come up with our cost estimate, my cost estimate, to implement treatment at these wells, we looked at 14 what we had just recently completed in 2017 for V-201. We 09:05AM 15 thought that that's a real-life example, it's a real well that 16 17 was -- you know, we installed -- we worked with the water 18 agency to implement wellhead treatment at that site. 19 And we were very involved in that project. We 09:05AM 20 actually -- we were sort of the financial manager of that 21 project. The invoices came to us. They were first approved by 22 the water agency, and then we would approve those and process 23 them for payment. 24 In your time with -- working for Whittaker at the 25 Bermite site, this isn't the first wellhead treatment that's 09:05AM

```
1
            been installed there -- right? -- on behalf of the agency?
         2
                        THE COURT:
                                    When you say "wellhead treatment that's
         3
            been installed there, " define "there, " please.
         4
                        MR. GALLAGHER: Well, let me just rephrase the
09:06AM
         5
            question.
         6
                        (BY MR. GALLAGHER:) Wellhead treatment isn't the --
         7
             it's not the first time that wellhead treatment has been
            utilized by the agency in connection with its production wells.
         8
                  Α.
                        That's correct. Wellhead treatment was installed at
            Well 0-2 as well.
09:06AM
        10
        11
                        Okay. And the Saugus Perchlorate Treatment
        12
            Facility, it's a form of wellhead treatment, is it not?
        13
                  Α.
                        Well, you're pushing water through ion exchange
            vessels to remove the perchlorate. That is similar. But much
        14
09:06AM
        15
            different project, I think I testified about this yesterday,
             that the Saugus 1 and 2 treatment plant -- the treatment
        16
        17
            vessels are at a separate location, and that project was much
        18
            more complicated because you had to convey water from the wells
             to the central treatment plant.
        19
09:06AM
        20
                  Q.
                        And as opposed to what happened at 201, for example?
        21
                  Α.
                        201, they built an enclosure and -- and put
        22
             treatment vessels in. It was a much simpler project.
        23
                  Ο.
                        And was the same true for Q-2?
        24
                  Α.
                        At the time, yes. When -- when Q-2 -- when
        25
            perchlorate detections were found at Q-2, the water agency very
09:07AM
```

1 quickly installed vessels to treat for perchlorate. 2 So when you're preparing your -- excuse me. 3 preparing your opinions, why is that so relevant, the fact that you had V-201 and Q-2 wellhead treatment? Why is that relevant 4 to your analysis? 09:07AM 6 Well, I guess very simply we know what things cost. 7 We did it. You know, on behalf of Whittaker, we managed the technical -- I mean, the -- the financial aspects of this 8 project. And we -- we actually had a seat at the table in that regard in that we were involved in -- in monitoring the 09:08AM 10 11 progress of the project and processing the payments. 12 So we had a very good idea of what wellhead treatment should cost. 13 14 So in terms of what Mr. Najm did, what do you 09:08AM 15 disagree with? I mean, you have real costs. What -- what's 16 the problem with what Dr. Najm did? 17 Well, first of all, he added a lot of contingency to Α. 18 his estimates. And he used a -- an estimating guide that 19 assumes a high degree of uncertainty. And in an engineering 09:08AM 20 project, when something is unknown and you're trying to 21 estimate the cost, you would -- you would add contingency for 22 the potential unknowns. 23 And in looking at his cost, it looks like he added a 24 substantial amount of contingency that really drove up the 25 price. And -- and these are fairly simple projects. You know, 09:09AM

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1
            this is -- this is very much a commodity.
                        When you say "a commodity," what do you mean? Can I
         2
            go to the store and just say, hey, I want this system, and buy
         3
         4
             it full price? I don't understand what you mean.
                        It's probably not -- there is engineering involved
09:09AM
         5
         6
            because you have to figure out how you're going to hook it up
         7
            and the size pumps you need and whether you need a slab and the
         8
            seismic tie-downs for that. It's not going to the store and
            buying it. You can't go to Home Depot and buy a treatment
09:09AM
        10
            system.
        11
                        But this is a commodity in that there are numerous
        12
            vendors that sell these tanks and -- and the main difference,
        13
             really, between the -- the Saugus 1 and 2 project that we were
             involved in and the -- the V-201 wellhead treatment project is
        14
09:10AM
        15
             the way the project was executed.
        16
                        For -- for 201, it was -- I would say a design-build
        17
             approach where we -- we said let's just deal directly with
        18
             the -- the vendors that sell the tanks and -- and have a
             contractor come in, and let's not over-engineer it. Let's just
        19
09:10AM
        20
            do enough engineering so we can execute the project quickly,
        21
             and that's what we did.
        22
                        And so the -- that formed the basis for my -- my
        23
            cost comparison to what Dr. Najm assumed.
        24
                  Q.
                        Now, I know you prepared some tables. And if I may,
        25
             I'd like to publish this for demonstrative purposes only.
09:10AM
```

	1	1454.
	2	MR. RICHARD: No objection, Your Honor.
	3	Q. (BY MR. GALLAGHER:) And so you prepared this table
	4	as part of your expert report. Can you explain to us what this
09:11AM	5	is and how it served as the foundation of what you think the
	6	cost estimate should be for wellhead treatment at these wells?
	7	A. Certainly.
	8	So the way I came up with a cost estimate for in
	9	this case, this is adding granular activated carbon to treat
09:11AM	10	for VOCs at Well V-201.
	11	Q. Mr. Simpson, let's take a step back.
	12	When we're talking treating perchlorate or treating
	13	PCE or VOCs or whatever, can you are the systems similar?
	14	A. The the contact time is different, but, you know,
09:12AM	15	the principle of using vessels filled with media is is
	16	similar. The the media is the main difference. For for
	17	perchlorate, the water is treated with ion exchange media. And
	18	then for VOCs, we use carbon, granular activated carbon.
	19	Q. But just, generally speaking, you're still dealing
09:12AM	20	with vessels. They're still generally of the same size.
	21	There's still electrical. There's still foundation. I mean,
	22	is it fundamentally the same in that regard?
	23	A. Yes. It's pumps, piping, control equipment, tanks
	24	filled with vessels vessels filled with media.
09:12AM	25	Q. And the only difference between the two contaminants

1 are the type of media you're going to use? 2 Α. And the contact time. And the contact time. 3 Q. So -- okay. So when you prepared this estimate, 4 what were you relying on, then, foundationally? You're just 09:12AM 5 6 relying on the same basic concept of treatment systems are 7 interchangeable? 8 MR. RICHARD: Objection. Leading, Your Honor. THE COURT: Sustained. (BY MR. GALLAGHER:) Explain to me why it is you're 09:13AM 10 Ο. using certain numbers here based on wellhead treatment for 11 perchlorate. 12 13 Okay. So what Dr. Najm put together was theoretical, you know, going line item by line item through 14 09:13AM 15 what costs could be incurred. And we realized that, instead of doing that, taking that approach and adding all the contingency 16 17 that he added, why don't we look at what was actually incurred 18 in a very recent project that, you know, I would view as very successful and use that same approach for installing additional 19 09:13AM 20 treatment at Saugus 1 and 2, 201, and then new treatment at 21 205. 22 And so --23 If I heard you right, you're taking the recent 24 perchlorate wellhead treatment at 201 and Q-2, and you're using 25 that as a baseline to run out these estimates for VOC 09:14AM

treatment?

Α. That's correct because it's similar. You know, it's installing tanks, pumps, pipes. We took the realized costs from the 201 project, which was \$1.9 million, and then we adjusted for additional vessels, additional foundation that would be required. For VOC treatment, you need a backwash system, so we added that.

And then we subtracted things that are redundant that we already have at the site. That could be -- you know, that we don't want to double count, such as the connection to the main waterline, the electrical controls and the SCADA system. The SCADA system is used to control the -- to monitor the treatment and to control it. And then we -- we made adjustments as shown on the -- the jury can see the table.

- So this 1.9, when you said that was the cost for the V-201 perchlorate treatment system, anything built into that? Is that all in? Can you explain what that number is and how you got there?
- Sure. So the original estimate before we -- you Α. know, as we started this project working with the water agency to implement treatment at 201, the original estimate was about 1.3 million. And then there are extras. Extras happen in construction, you know.

And -- and so the 1.9 is the actual cost, that we have invoices that were paid by Whittaker. So what's built

09:14AM

6 7

8

9

10

11

1

2

3

4

5

09:14AM

12 13

14

09:15AM 15

16

17 18

19

09:15AM 20

21

22

23

24

25 09:15AM

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1
             into the 1.9 million is the contingency, and that's the factor
         2
             that Dr. Najm added multiple times in his estimates -- well,
             it's already built into our starting point. We already assume
         3
             that -- that 1.9 includes a half a million dollars in extras
         4
             that was incurred.
09:16AM
         5
         6
                        So as you get through this table, you finally get to
         7
             the ultimate price or ultimate estimate for V-201 VOC treatment
             cost of 2. -- let's round up -- $2 million?
         8
                  Α.
                        $2.2 million.
                        Let's move on to the next exhibit, 1455.
09:16AM
        10
                  Ο.
        11
            been stipulated for demonstrative only.
        12
                  Α.
                        Before you move on, could I --
        13
                  Q.
                        Yeah. We can go back.
                        That also -- we made -- we're assuming that that
        14
09:16AM
        15
             same number, that 2.2 million, would also apply for installing
             tanks for treating VOCs at the Saugus 1 and 2 treatment plant.
        16
             So it's the same -- that cost would be similar.
        17
        18
                        So that cost would be similar for treatment at
                  0.
             Saugus 1 and 2, obviously 201, and 205?
        19
09:17AM
        20
                  Α.
                        No. 205 requires more vessels. So that's --
        21
                  0.
                        We'll get there.
        22
                  Α.
                        The final table is my estimate for 205.
        23
                  Q.
                        So let's skip to -- back to 1455, please.
        24
                        Okay. Can you walk us through this estimate and
        25
            what it's for?
09:17AM
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```
1
                        Sure. Very similar approach. The starting point is
                  Α.
         2
             the realized cost for treatment at 201, which includes a
         3
             contingency already. It's built in because of the extras that
             occurred. We said, okay, we'll make -- we'll assume that those
         4
             same extras will be needed or could happen for 205.
09:17AM
         5
         6
                        And then we added additional vessels to account for
         7
             the flow rate. We made the same assumption as Dr. Najm, that
             the flow rate would be 2700 gallons per minute. And then --
         8
             and so we -- we -- we added additional vessels, and we end up
            with a cost of 2.2 million for the treatment capital and
09:18AM
        10
        11
             then --
        12
                  Q.
                        Can you pause there?
                        Is that the 2.2, then, total cost for V-205
        13
             treatment, or am I just misunderstanding your table?
        14
09:18AM
        15
                        I'm sorry. So --
                  Α.
                        What I want you to focus on, if you can, in going
        16
                  0.
        17
             through your estimates for 205, I'd like you to break out, if
        18
            possible, the cost for V-205 VOC treatment versus perchlorate
        19
             treatment.
09:18AM
        20
                  Α.
                        Okay. Thank you. And I think I misspoke.
                                                                     Thank
        21
            you for stopping me there.
        22
                        So the first number here of -- of 1.225 million is
        23
             the -- is the additional cost for perchlorate because for --
        24
            perchlorate treatment, which would be additional ion exchange
        25
            vessels.
09:19AM
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1 And for that estimate, we assumed the cost for the 2 Q-2 vessels. And that's a very recent project that was done --3 I think it was completed earlier this year -- where new vessels were installed to treat perchlorate at Q-2. And so those 4 are -- those are the actual incurred cost. 09:19AM 5 6 And so we use those costs to come up with the tank 7 cost and the additional foundation and -- and additional 8 construction cost to implement perchlorate treatment at 205. And so the additional cost on top of the 1.9 would be 2.2 --1.225 million for that. 09:20AM 10 11 0. Can you --12 Α. And then we go on to look at -- assuming that VOC treatment is needed, we would have to add additional wells -- I 13 mean, I'm sorry, additional activated carbon vessels and there 14 09:20AM 15 will be additional construction and engineering, and that would add an additional 1.3 million. 16 17 And so when we add all that together, we end up with 18 a \$6.625 million estimate. So looking at this table, if I'm adding it up right, 19 09:20AM 20 for VOC treatment capital costs only at 205, we're looking at 21 the 1 -- excuse me. Start over. 22 If I'm breaking this up between perchlorate 23 treatment and VOC treatment, focusing on perchlorate treatment, 24 if I'm adding this up right, the capital cost for V-205 25 perchlorate treatment is the 1.9 plus the 1.225 number? 09:20AM

	1	
	1	A. That's correct.
	2	Q. Okay. And then for VOC treatment only, capital
	3	costs, at 205, we're looking at the 2.2 plus the 1.3?
	4	A. That's correct.
09:21AM	5	Q. Okay. Let's move on to the next slide, 1456. And
	6	it has been stipulated to, demonstrative only.
	7	Now, this is your ultimate total cost for excuse
	8	me ultimate capital costs for all the treatment, assuming
	9	it's required; correct?
09:21AM	10	A. That's correct.
	11	Q. Okay. Now, did you look at Dr. Najm's O&M costs as
	12	it relates to this treatment?
	13	A. I did.
	14	Q. And what does O&M
09:21AM	15	MR. RICHARD: Objection, Your Honor. Beyond the
	16	scope. This is not in his report.
	17	THE COURT: Sustained.
	18	MR. GALLAGHER: Actually, it was testified to.
	19	THE COURT: The objection is sustained if it wasn't
09:22AM	20	in his report.
	21	MR. GALLAGHER: Fair enough.
	22	Nothing further.
	23	THE COURT: Mr. Richard.
	24	MR. RICHARD: Thank you, Your Honor.
09:22AM	25	THE COURT: Actually, before you begin your

	1	questioning, let me just understand your opinion.
	2	So your opinion is that there isn't a need for
	3	additional VOC treatment; correct?
	4	THE WITNESS: That that's correct. There is no
09:22AM	5	agency requiring that.
	6	THE COURT: All right. And did you render or did
	7	you provide an opinion about the necessity for perchlorate
	8	treatment at V-205? You could just answer the question yes or
	9	no whether you rendered an opinion in this case on that.
09:23AM	10	THE WITNESS: I'm assuming that's required, yes.
	11	THE COURT: All right. Thank you.
	12	You could proceed.
	13	CROSS-EXAMINATION
	14	BY MR. RICHARD:
09:23AM	15	Q. Well, you're assuming it's required because you
	16	understand that Whittaker has agreed that it has an obligation
	17	to pay for perchlorate treatment at V-205?
	18	MR. GALLAGHER: Beyond the scope. Lacks foundation.
	19	THE COURT: I asked the question very narrowly for
09:23AM	20	that reason to see whether it was within the scope. So I am
	21	going to sustain the objection.
	22	MR. RICHARD: Your Honor, I'm going to ask for a
	23	little leeway, given that this witness is both a percipient and
	24	an expert. So I'll lay the proper foundation, if we can come
09:23AM	25	back to that.

1 THE COURT: Yes. That's fine. 2 (BY MR. RICHARD:) And before we get to your 3 opinions, Mr. Simpson, first, you would agree that a GAC 4 system, this granular activated carbon treatment system, is, in fact, an effective way to remove VOCs from groundwater; 09:23AM 5 6 correct? 7 Α. Yes. And before we talk about your expert opinions that 8 Q. you just ran through, I wanted to ask you about some of the comments you made yesterday regarding your history with 09:24AM 10 11 Whittaker, this site, and dealing with the water agency. 12 And you recall yesterday and then again today Mr. Gallagher asked you a number of questions about Well V-201? 13 14 Α. Yes. 09:24AM 15 Okay. And that's the one that was shut down -when? -- 2010 or 2011, after the agency discovered perchlorate? 16 17 I think I have the exact date in my -- it was Α. 18 removed from service in 2010. 19 Okay. And then you said yesterday and again -- I 09:24AM 20 think you said today but I want to make sure I heard it right, 21 that Whittaker agreed that we needed to put treatment in as 22 quickly as possible. Is that -- did I get that right? Were 23 you talking about V-201? 24 I would say the technical representatives for 25 Whittaker agreed that wellhead treatment should be installed as 09:25AM

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1
             quickly as possible in 201, yes.
                        Okay. The technical representatives agreed to that.
         2
         3
            But you're aware that Whittaker, Mr. Lardiere didn't agree to
             that?
         4
                        MR. GALLAGHER: Lacks foundation. Calls for
09:25AM
         5
         6
             speculation.
         7
                        MR. RICHARD: I'll lay a foundation, Your Honor.
                        THE COURT: Please do.
         8
         9
                        (BY MR. RICHARD:) Yesterday you were asked a number
                  0.
             of conversations -- you were asked a number of questions about
09:25AM
        10
        11
             your conversations with Mr. Lardiere. Do you know who
        12
            Mr. Lardiere is?
        13
                  Α.
                        I do.
                        And you've worked with -- Whittaker has been a
        14
             client of your firm for -- did you say 17 years?
09:25AM
        15
        16
                        Approximately, yes.
                  Α.
        17
                        And your principal contact at Whittaker has been
        18
            Mr. Lardiere during those 17 years?
        19
                        That's correct.
                  Α.
09:26AM
        20
                  Q.
                        And you told us yesterday and again today that you
        21
             discussed with Mr. Lardiere aspects of V-201 and V-205 when
        22
             those wells -- when perchlorate was detected in those wells; is
        23
             that correct?
        2.4
                  Α.
                        Yes.
        25
                        And the well went down -- Well V-201 in 2010.
09:26AM
                  0.
```

```
1
             an agreement wasn't reached between Whittaker and the water
         2
             agency until 2015; is that correct?
         3
                  Α.
                        That's correct.
                        And so is it correct that there are occasions
         4
            where -- and you were familiar with the -- I think you told us
09:26AM
         5
         6
             yesterday, you attend technical meetings monthly pursuant to --
         7
             required by the 2007 settlement agreement between Whittaker and
         8
             the water agency; is that correct?
                  Α.
                        That's correct.
                        And you understood that that 2007 settlement
09:27AM
        10
                  Ο.
        11
             agreement covered Well V-201 perchlorate contamination; is that
        12
             correct?
                        That's correct.
        13
                  Α.
                        So you didn't mean to suggest to the jury that
        14
09:27AM
        15
            Whittaker -- or Mr. Lardiere agreed that Whittaker should move
             quickly to pay for treatment of perchlorate at Well V-201, did
        16
        17
            you?
        18
                        We -- we were aware of -- I'm not answering the
                  Α.
        19
             question directly. I'm sorry.
09:27AM
        20
                        So the question was: Was I aware that Mr. Lardiere
            was -- I'm sorry. Could you repeat the question?
        21
        22
                  Q.
                        Sure.
        23
                        Yesterday you testified that if we told him he would
        24
            pay for it, in talking about wellhead treatment, can you tell
            us what you were referring to? Was that V-201 or is that
        25
09:28AM
```

```
1
            Well V-205 or was that something else?
         2
                        Well, if -- if -- if we believe from a technical
         3
            perspective that it was appropriate to install wellhead
             treatment at either 201 or 205, my experience with Mr. Lardiere
         4
             is that he would support that because it protects him in the
09:28AM
         5
         6
             long run from additional perchlorate impacts with additional
            wells.
         7
         8
                  Q.
                        Right.
         9
                        But in the short run, you understand he's concerned
        10
             about costs?
09:28AM
        11
                        MR. GALLAGHER: Calls for speculation. Lacks
             foundation.
        12
                        THE COURT: Overruled.
        13
        14
                        Based upon your discussions with him as you've
             testified.
09:28AM
        15
        16
                        THE WITNESS: Like any businessman, he's going to be
        17
             concerned about cost. But it's not preventing him from moving
        18
             forward with projects that protect him in the long run.
        19
                        (BY MR. RICHARD:) Okay. Well, so you knew -- you
                  Q.
09:29AM
        20
            personally knew, Mr. Simpson, that perchlorate's detected and
        21
             the agency shuts down Well V-201 in 2010; correct?
        22
                  Α.
                        That's correct.
        23
                        And you decide that wellhead treatment is needed
        24
             quickly; correct?
        25
                        I think there's a timing issue here.
09:29AM
                  Α.
```

	1	Q. Okay.
	2	A. You know, the agency has a lot of wells.
	3	Q. Let me ask you another question.
	4	At what point did you decide after the well was
09:29AM	5	shut down and the agency lost production from that well in
	6	2010, at what point did you decide that wellhead treatment
	7	should be installed quickly?
	8	A. When the agency decided they were going to move
	9	forward with wellhead treatment.
09:29AM	10	Q. Were you aware of the general manager of Valencia,
	11	Mr. Masnada, contacting Whittaker and Mr. Lardiere in
	12	particular a couple of days before Christmas 2014 requesting
	13	that he agree to pay for treatment at Well V-201 that had gone
	14	down four years earlier?
09:30AM	15	MR. GALLAGHER: Calls for speculation.
	16	THE COURT: Overruled.
	17	THE WITNESS: I'm vaguely aware, yes.
	18	Q. (BY MR. RICHARD:) So does your vague awareness
	19	include Mr. Lardiere telling you that Mr. Masnada was pretty
09:30AM	20	hot under the collar about the delay from Whittaker in agreeing
	21	to pay for treatment at Well V-201?
	22	A. I don't know the substance of the conversation and
	23	whether Whittaker was refusing to fund it. I was always under
	24	the impression that if it was needed pursuant to the agreement,
09:30AM	25	the Castaic Lake Water Agency agreement, that Whittaker would

```
1
             fund it.
         2
                  Q.
                        Eventually.
         3
                        Pardon me?
                  Α.
                        You were under the impression that Whittaker would
         4
                  0.
             eventually fund it?
09:31AM
         5
         6
                  Α.
                        I -- I'm not sure about eventually. I -- I --
         7
                        Okay. Are you the -- you're a principal at your
                  0.
             firm; is that right?
         8
         9
                  Α.
                        I am.
                        And one of your responsibilities is to be
09:31AM
        10
                  Ο.
        11
             responsible for creating new business for the firm?
        12
                        That is one of my responsibilities, yes.
                  Α.
                        And Whittaker has at times accounted for as much as
        13
                  Ο.
        14
             10 percent of your business, at least that's what you thought
             at the time of your deposition? Is that fair?
09:31AM
        15
        16
                  Α.
                        That's not what I said. I -- I think what I said in
        17
             my -- personally in the time that I spend on Whittaker projects
        18
             is probably 5 to 10 percent of my overall project load.
        19
                  Q.
                        Right.
09:31AM
        20
                        And you have staff that helps you with your overall
        21
             project load involving Whittaker; right?
        22
                  Α.
                        I do.
        23
                        And you have -- you're busier when you're involved
        24
             in arbitrations and trials. Do you recall talking about that
        25
             in your deposition?
09:32AM
```

	1	A. Yes.
	2	Q. And by "busier," I mean busier for Whittaker.
	3	A. That's correct.
	4	Q. And in addition to this project, you have at least
09:32AM	5	two other projects involving Whittaker, you or your firm?
	6	A. I do.
	7	Q. One of those is the Hollister project?
	8	A. That's correct.
	9	Q. And one of them is the North Hollywood project?
09:32AM	10	A. That's correct.
	11	Q. So yesterday you talked about in connection with
	12	Well V-205 that Whittaker was taking a wait-and-see approach.
	13	Did I get that right?
	14	A. That's correct.
09:32AM	15	Q. And wasn't it your understanding at the time that
	16	Whittaker had actually agreed in the 2007 settlement agreement
	17	to have a certain response when notified of perchlorate
	18	detections in that well above a certain level?
	19	MR. GALLAGHER: Lacks foundation. Calls for
09:33AM	20	speculation.
	21	THE COURT: Overruled.
	22	Do you have an understanding of the responsibilities
	23	of Whittaker under the 2007 settlement agreement?
	24	THE WITNESS: Yes. I am aware that that if there
09:33AM	25	is a notice made, that Whittaker was required to do certain

```
1
             things based on that notice.
         2
                        (BY MR. RICHARD:) And one of those things was to
         3
            meet and confer in good faith to -- to discuss funding of
             treatment to address the perchlorate contamination?
         4
                        MR. GALLAGHER: Vaque as with who.
09:33AM
         5
         6
                        THE COURT: Overruled.
         7
                        THE WITNESS: As I sit here, I don't -- I don't want
         8
            to guess what the requirements were. So I -- I'm not sure.
                        (BY MR. RICHARD:) And is it fair to say that you
                  Ο.
            were aware at the time that Mr. Matt Stone of the water agency
09:33AM
        10
             sends a letter to Mr. Lardiere, a formal notice in March 2018,
        11
        12
            then Mr. Lardiere talks to you about -- was it that letter or a
             later letter? Or do you recall?
        13
        14
                        I think it's the letter -- the notification of
                  Α.
09:34AM
        15
            perchlorate detections that we discussed.
        16
                        Okay. And you recall that Mr. Stone had to send a
                  Ο.
        17
             follow-up notice to Mr. Lardiere in May 2018 after his letter
        18
             in March 2018? Were you in the loop on that one?
                        I probably saw it, but I -- I don't want to mislead
        19
                  Α.
09:34AM
        20
             anybody.
                      I don't remember specifically.
        21
                  0.
                        Sure.
        22
                        And you don't remember any written response from
        23
            Whittaker between March 18th and -- and mid-May 2018 on V-205,
        24
            do you?
        25
                  A. Mr. Lardiere had tasked us to come up with a
09:34AM
```

```
1
             technical response to the detections in 205. And I reported
         2
            back to him that --
         3
                        I understand -- I don't mean to interrupt, but let's
                  Q.
         4
            go step by step, if I could.
                        You're not aware of a written response -- let's
09:35AM
         5
         6
             start with Mr. Lardiere. You didn't help him draft a written
         7
             response that was actually sent to Mr. Stone between March and
            May 2018; is that fair?
         8
                        We intended to, but we didn't have the supporting
                  Α.
             information in -- from which to develop the response.
09:35AM
        10
                        So it's your memory that, in fact, no response
        11
        12
            was -- was sent; correct?
                        That I'm aware of, that's correct.
        13
                  Α.
                        For example, Mr. Lardiere did not write back, um, we
        14
09:35AM
        15
             can't respond to your March request because we're waiting for
             some information from you even though you've already notified
        16
        17
            us of the perchlorate contamination? You don't recall that
             kind of response?
        18
                        I don't know what responses Mr. Lardiere would have
        19
09:36AM
        20
            made. But in the technical meetings, this was an agenda item
        21
             and it was discussed.
        22
                  Q.
                        Right.
        23
                        But, sir, you were very clear with the agency that
        24
             in the technical meetings, you had no authority to bind
        25
            Whittaker; correct?
09:36AM
```

	1	A. That's correct.
	2	Q. Mr. Lardiere can bind Whittaker but not you?
	3	A. That's correct.
	4	Q. In fact, when you testified that if we told him he
09:36AM	5	would pay for it and again, you've described here generally
	6	that Mr. Lardiere would be willing to pay for wellhead
	7	treatment that's not even true for Well Q-2 that you talked
	8	about, is it?
	9	MR. GALLAGHER: Argumentative.
09:36AM	10	THE COURT: Overruled. I'll allow it.
	11	THE WITNESS: Well, Whittaker originally paid for
	12	wellhead treatment at Q-2.
	13	Q. (BY MR. RICHARD:) You recall that there was an
	14	arbitration earlier this year regarding treatment for was
09:37AM	15	the treatment at the wellhead of Q-2?
	16	A. Originally, yes.
	17	Q. Okay. Then what happened?
	18	A. Then those treatment vessels were were repurposed
	19	for the V-201 project. And then when perchlorate showed up
09:37AM	20	again at Q-2, additional treatment vessels were installed at
	21	the Saugus 1 and 2 treatment plant.
	22	Q. Right.
	23	And so when perchlorate shows up again at Well Q-2,
	24	there were no vessels there to treat it; correct?
09:37AM	25	A. Well, there were vessels there, but they weren't

```
1
             there to treat water from Q-2.
         2
                        Okay. Hadn't the vessels been moved to Well V-201
         3
             treatment?
                        That's correct.
         4
                  Α.
                        And so you -- when perchlorate was again detected at
09:37AM
         5
         6
             Q-2, wasn't there a point in time where you thought that
         7
            Whittaker should cooperate in installing treatment for the new
             detection of perchlorate at Well Q-2?
         8
                        In my deposition, I said -- I believed that
                  Α.
            Whittaker was going to pay for that. I was unaware at that
09:38AM
        10
        11
             time that there was a legal dispute.
        12
                  Q.
                        Okay. So you thought that Whittaker should pay for
        13
             it. You testified that Whittaker would pay for it. Whittaker
             didn't pay for it until there was an arbitration earlier this
        14
09:38AM
        15
             year. Is that generally consistent with your memory of how
             those events developed?
        16
        17
                        That is generally correct, yes.
                  Α.
        18
                        And you testified in that arbitration regarding Q-2
                  0.
             earlier this year; correct?
        19
                        I did.
09:38AM
        20
                  Α.
        21
                        And you testified that the estimates from
                  0.
        22
            Mr. Abercrombie in that proceeding were too high, in your
        23
             opinion; correct?
        2.4
                  Α.
                        I actually don't remember that particular testimony.
        25
09:39AM
                  0.
                        Okay. But you do recall that after the arbitration
```

```
1
             that Whittaker lost, it paid for, among other things, a
         2
             containment study, replacement water, and other costs. Do you
         3
             recall that?
         4
                  Α.
                        I recall that, yes.
                        Okay. And -- so would you say that Whittaker more
09:39AM
         5
                  0.
         6
            broadly has a wait-and-see approach when it comes to a request
         7
            by the agency to have Whittaker fulfill its obligations under
         8
             that 2007 settlement agreement?
                  Α.
                             I don't think that Q-2 is comparable to 205 or
             to 201. You know, Q-2 is an alluvial well, and there's very
09:39AM
        10
        11
             little containment benefit from O-2. You know, it's the
        12
             alluvial -- alluvial aquifer, the shallower aquifer.
        13
                        The containment benefit is from the Saugus
            production wells. And that would be Saugus 1 and 2, V-201, and
        14
            V-205.
09:40AM
        15
        16
                        And so when I told -- when I said yesterday that --
             that I -- that if we told Whittaker from a -- from --
        17
        18
            Mr. Lardiere from a technical perspective that it -- it's in
            his best interest to install treatment at 205, I believe he
        19
09:40AM
        20
            would listen to us and he would move forward with it.
        21
                        There's -- so let me -- let me understand that.
                  Ο.
        22
                        So if it's -- if Whittaker ended up paying for
        23
             treatment at Well Q-2 because it had an obligation to do so --
        24
             is that generally your understanding?
        25
                  Α.
                        That's correct.
09:40AM
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```
1
                        And you just testified, but the treatment at Q-2 was
                  Q.
             in the alluvial and not Saugus; therefore, it's not really
         2
         3
            providing a containment benefit to Whittaker. Did I hear that
             right?
         4
                        Well, that's -- I mean, from a technical
09:41AM
         5
         6
            perspective, it's just a different -- in a different location.
         7
                        Okay. So in your discussions with Mr. Lardiere, did
                  0.
            you have that discussion, that, well, this well really -- if we
         8
            provide treatment, that won't really help us on containment so
        10
             let's take a wait-and-see approach on that one --
09:41AM
        11
                  Α.
                        No.
        12
                        -- until we get sued?
                  Q.
        13
                  Α.
                        No. We never took that approach for Q-2.
                        Okay. Do you recall, you testified to a number of
        14
             technical meetings. It's fair you don't recall over the last
09:41AM
        15
        16
            many years -- you don't take notes at those meetings, do you?
        17
                        No, I don't.
                  Α.
        18
                        Okav. And --
                  0.
                        Well, let me back up. I keep some notes, but I'm
        19
                  Α.
09:41AM
        20
            not a great notetaker.
        21
                        Do you know if you ever provided those notes in the
                  0.
        22
             course of this litigation to anyone?
        23
                  Α.
                        I'm not sure that I did.
        24
                        You do recall -- you were talking about a permit for
        25
            V-201. Do you recall attending one or more meetings with
09:42AM
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```
1
             Matt Stone, the general manager of the water agency, regarding
         2
             that topic? Correct?
         3
                        I'm sorry. Could you repeat the question?
                  Α.
         4
                  Ο.
                        Sure.
                        You recall attending one or more meetings with
09:42AM
         5
         6
             Matt Stone, these monthly technical meetings, where the issue
         7
             of a permit for V-201 came up?
                        That's correct.
         8
                  Α.
                        And you recall one meeting where he let you know
                  0.
             that getting a permit for V-201 was a big priority so that the
09:42AM
        10
        11
             well could be used for drinking water; correct?
        12
                  Α.
                        That's correct.
        13
                        And he was -- I forget exactly. Would it be fair to
             say he was expressing concern or anger at that point in the
        14
09:42AM
        15
             meeting, that that well was not available for drinking water?
        16
                  Α.
                        It appeared to me that he was upset with his own
        17
             consulting team in delaying providing the response DDW needed
        18
             to issue the permit for that well.
                        And the well for V-201 has -- had perchlorate
        19
                  Q.
09:43AM
        20
             treatment available since -- what? -- 2017?
        21
                        That's correct.
                  Α.
        22
                        And construction was completed, I think you said,
        23
             sometime in 2017?
        2.4
                  Α.
                        That's correct.
        25
                        And you would agree that, even though that well has
09:43AM
                  Q.
```

1 perchlorate treatment, which was the original reason the well 2 was shut down, it still does not have a permit from DDW to 3 serve drinking water? Did I get that right? That's correct. 4 Α. And do you know whether one of the reasons -- first 09:43AM 5 0. 6 of all, you know that -- I think you testified to this 7 yesterday -- that the aguifer from which that well draws water 8 has been deemed to be an extremely impaired water source? Α. I'm aware of that, yes. And one of the reasons is because of VOCs? Do you 09:43AM 10 Ο. 11 know one way or the other? 12 I -- I think it's for perchlorate. I'm not sure Α. if -- if VOCs are driving that designation as well. 13 You testified around this morning, I think around 14 09:44AM 15 9:00 o'clock when Mr. Gallagher was asking you some questions about the process, as to whether someone ever articulated a 16 concern about VOCs. You testified that that was something you 17 18 understood that they had to deal with. Do you recall that? 19 "They" being the water agency. 09:44AM 20 Α. Well, there's low-level detections -- there were 21 in -- at 201. TCE has been detected, generally right at the 22 detection limit. Very low concentrations, nothing above the 23 MCL. 24 Sir, I'm just asking you about your testimony from 25 less than an hour ago. You were talking about a meeting 09:45AM

1 involving V-201 and VOCs. And I thought I heard you say, yes, 2 I understood that the -- that VOCs were something the agency 3 had to deal with. 4 Α. Well, they have to deal with all contaminants, both naturally occurring and -- and anthropogenic, or man-made 09:45AM 5 6 compounds, yes. 7 Sir, you understand that in the -- at least from 0. your discussions with the agency and with DDW, that VOCs are 8 something that the water agency has to deal with in terms of their discussions with DDW and trying to get Well V-201 back 09:45AM 10 11 online; isn't that correct? 12 Α. That's correct. 13 Q. All right. Thank you. Now let's turn to your role as a cost estimator 14 09:45AM 15 expert for Whittaker. 16 Is it fair to say that you do not routinely prepare cost estimations for water treatment facilities? 17 18 Actually, I -- I do quite a bit of water treatment Α. 19 and prepare estimates for clients. 09:46AM 20 Q. You recall our discussion at your deposition where you talked about inspecting and reviewing other -- other folks' 21 22 cost estimates? 23 What I said in my deposition is that I wouldn't Α. 24 consider myself a -- a sharp pencil engineer, the one that 25 would design the piping, you know, specify the pumps and, you 09:46AM

```
1
             know, the actual tanks. But the concept of -- of, you know,
         2
             how we would treat the water, what the appropriate treatment
             method would be is -- is what I do.
         3
         4
                  Ο.
                        Right.
                        But focusing on the cost estimation, as a discipline
09:46AM
         5
         6
             and exercise, is it fair to say you have not heard of something
         7
             called the equipment factored approach for cost estimation
             before this case?
         8
                  Α.
                        I don't -- I don't use that in my practice. So, no,
             I -- I was not familiar with that.
09:47AM
        10
        11
                        You don't teach courses in cost estimation; is that
        12
             fair?
                        I do not.
        13
                  Α.
                        You do not routinely use the principles or quidance
        14
09:47AM
        15
             from a group called, you know, AACE, the group of cost
             estimating engineers, do you?
        16
        17
                        I'm familiar with the document, but I don't use it
                  Α.
        18
             in my estimating practice.
                        And you're not offering the opinion here today that
        19
09:47AM
        20
             the approach, the methodology used by Dr. Najm is not the
        21
             generally accepted approach used in the industry, are you?
        22
                        Well, I think it is a method of coming up with cost.
                  Α.
        23
                  Q.
                        Okay.
        24
                  Α.
                        But it is -- because of the various contingencies
        25
             that are added to it, it -- it increase -- it results in a --
09:47AM
```

1 in a very high cost relative to a different approach in 2 executing a project, more of a design-build approach that can 3 save, you know, substantial money. 4 Ο. Right. Let's just go step by step, though. In terms of the methodology Dr. Najm uses, you would 09:48AM 5 6 agree that's a recognized approach to address cost estimation, 7 especially at early stage of project consideration; is that 8 fair? You said it's an approach. Α. I'm not sure I agree with the early stage of project execution because this project is pretty well defined. 09:48AM 10 11 Installing wellhead treatment at an existing well site is -- is 12 a fairly straightforward effort. No, I understood you to say that. And we'll get to 13 Q. those pieces. 14 09:49AM 15 But your approach in this case was not to follow the principles set forth by any recognized group of cost estimating 16 experts or engineers; correct? There's no published literature 17 18 to support your approach of starting with a project that was 19 completed four years ago. Can we agree on that? 09:49AM 20 Α. I -- I don't know that I would say that it's not an 21 approach that would be accepted or recognized by others in my 22 profession. I mean, I have a project that was recently 23 To me, that's a much more -- that provides much 24 more certainty about what the potential cost would be rather 25 than using an approach that really has no familiarity with the 09:49AM

```
1
             site itself, with, um, what's been done recently and doesn't
         2
             take into account the design-build approach that we did for
         3
             201.
                  Ο.
                        So let's talk about that.
         4
                        So for your approach in this case, as you've just
09:50AM
         5
         6
             described it, was to start with a project completed four years
         7
             ago that did not involve buying any new vessels and did not
         8
             involve GAC treatment; is that right?
                  Α.
                        Well, that --
                        Is that right?
09:50AM
        10
                  Ο.
        11
                        No. Not necessarily. I mean, they are -- the
        12
            projects are different, indeed. And we accounted for that in
        13
             the estimate I put together.
                        MR. RICHARD: Your Honor, if I could just get an
        14
09:50AM
        15
             answer, if possible, to that question. And I'll ask it again.
        16
                        (BY MR. RICHARD:) Your approach was to start with
                  0.
        17
             the cost for a project completed four years ago, for a project
        18
             that did not require purchasing new vessels and that did not
        19
             involve GAC treatment; is that correct?
09:51AM
        20
                        THE COURT: You can answer that yes or no.
        21
                        THE WITNESS: That's correct.
        22
                        (BY MR. RICHARD:) And then you took that number and
                  Q.
        23
             you made some adjustments and extrapolations; correct?
        2.4
                  Α.
                        That's correct. Based on --
        25
                        I understand.
09:51AM
                  Ο.
```

	1	A. Based on new information that we received from
	2	from vendors, including the the largest expense are the
	3	tanks.
	4	Q. Right.
09:51AM	5	A. The pressure vessels.
	6	Q. Okay. And on that point, you and Dr. Najm agree
	7	that, at least as of a few months ago, those vessels are about
	8	\$200,000 each?
	9	A. That's correct.
09:51AM	10	Q. You haven't checked the current market as of today
	11	for those vessels, if you wanted to get those delivered in the
	12	next month or so, have you?
	13	A. I I have not checked recently. That estimate, I
	14	think, from our vendor was in April of this year.
09:52AM	15	Q. Right.
	16	And you're aware that there's some turmoil in the
	17	markets for the delivery of goods, including large metal
	18	vessels manufactured somewhere?
	19	A. I I'm aware of the supply chain challenges, yes.
09:52AM	20	Q. And one of the wells you mentioned but I don't
	21	recall you going into much detail on, something about treatment
	22	for an end well. Do you recall that?
	23	A. I think yes. There are I think there are
	24	three end wells that have treatment.
09:52AM	25	Q. Okay. And you're aware or do you know whether

```
1
             any of those treatment systems involved a six-vessel
         2
             configuration?
         3
                        I don't know much about that, just aware that they
                  Α.
             were -- that project was recently completed.
         4
                        Okay. And before coming -- well, are you aware --
09:52AM
         5
         6
             assume that Dr. Najm testified that in that project for just
         7
             those six vessels cost about $7.5 million. Do you have any
         8
             information to suggest that he was incorrect in that regard?
                  Α.
                        I have no way of knowing one way or another what was
             included and how relevant that is to a wellhead treatment
09:53AM
        10
        11
            project.
        12
                        Okay. I'm just asking you about the $7.5 million.
                  Q.
             You don't know one way or the other?
        13
        14
                        I just don't know.
                  Α.
09:53AM
        15
                        And this approach you had in this case of looking at
                  Q.
             a project completed four years ago that did not involve
        16
        17
            purchasing new vessels and then making some adjustments and
        18
             extrapolations, you would agree that that approach to cost
        19
             estimation is not the standard approach?
09:53AM
        20
                  Α.
                        I -- I'm not sure that there is a standard. It's
        21
            what -- what is -- what is the number you should rely on or
        22
            would be appropriate for executing a project like this. And
        23
             to -- to me, if we take a design-build approach, similar to
        24
            what we did at 201, we could realize costs similar to what my
        25
09:54AM
             estimate is in my report.
```

	1	Q. Right.
	2	My question is just whether you would agree that
	3	that was not a standard approach.
	4	A. It's not the approach that Dr. Najm used but
09:54AM	5	Q. That wasn't my question, Mr. Simpson.
	6	MR. RICHARD: Your Honor, I would propose that we
	7	read to the witness from his deposition. I believe that was
	8	delivered, probably without a spine label for Your Honor, but
	9	page 46, line 17 through line 3, page 47.
09:54AM	10	MR. GALLAGHER: Page 46, line?
	11	MR. RICHARD: Line 17.
	12	MR. GALLAGHER: No objection.
	13	THE COURT: You may proceed.
	14	Q. (BY MR. RICHARD:) And you recall giving a
09:55AM	15	deposition just a few weeks ago in this case?
	16	A. I I recall.
	17	Q. And you were asked I don't know if you have this.
	18	Okay. I'll just read it to you.
	19	"QUESTION: Did you make adjustments and
09:55AM	20	extrapolations to come up with your cost estimates?
	21	"ANSWER: I did.
	22	"QUESTION: And as you sit here, can you point
	23	to any literature that says an approach that begins
	24	with costs of a project at a different point in time
09:55AM	25	to treat a different chemical in the groundwater than

	1	that that that is an acceptable approach to cost
	2	estimation, this adjustment and extrapolation
	3	approach.
	4	"ANSWER: I would say it is a nonstandard
09:55AM	5	method," period. And then you went on to explain your
	6	answer.
	7	That was correct at the time you testified a few
	8	weeks ago, that your approach in this case, you would say, was
	9	a nonstandard approach?
09:55AM	10	A. That's what I testified to, but it doesn't make it
	11	an unreliable number. In fact, to me, it makes it even more of
	12	a reliable number because it was what was actually realized at
	13	a recent project.
	14	Q. So your \$11 million all in for all of the four
09:56AM	15	treatment projects, that does not include any amount for
	16	management costs; is that correct? You don't have a line item
	17	for that?
	18	A. It would be a similar level of management of what
	19	occurred at V-201.
09:56AM	20	Q. Legal fees, you don't have a line item for legal
	21	fees?
	22	A. Again, it's not line-itemed out because it's based
	23	on the actual or realized cost that Whittaker paid for 201.
	24	Q. And you do not include a line item for
09:56AM	25	contingencies; correct?

	1	A. As I said earlier, the contingency's built into the
	2	starting point.
	3	Q. Right.
	4	It's your view that whatever supply, pricing,
09:57AM	5	project, construction, contingencies could occur in the future
	6	for these four projects going forward have all been accounted
	7	for in that V-201 project from four years ago; correct?
	8	A. Well, it's it's it's not just the project four
	9	years ago. It's also the Q-2 project that we that Whittaker
09:57AM	10	funded. And we're aware of those costs, and those were used as
	11	well. And that was a much more recent project.
	12	Q. Right.
	13	But you would agree that you're not taking into
	14	account new contingencies in the future that could arise either
09:57AM	15	because of site conditions, supply chain issues, increased
	16	construction costs?
	17	A. We assume that those contingencies are built into
	18	the estimate, that's correct.
	19	Q. Now, your firm does cost estimates from time to
09:57AM	20	time; right?
	21	A. We do.
	22	Q. And it typically includes a line item for
	23	contingencies; correct?
	24	A. Often. Or if there's no contingency, we let the
09:58AM	25	client we make them aware of that.

	1	Q. Doesn't your firm typically include contingencies
	2	because stuff can happen, stuff you didn't expect?
	3	A. That's correct.
	4	Q. You can have unexpected conditions during execution
09:58AM	5	of the project, such as this. Would you agree with that?
	6	A. I would. Similar to what happened at Q at V-201
	7	where about a half a million dollars of extras was was
	8	incurred were incurred. And that's why we used that
	9	starting point as our that estimate of what was actually
09:58AM	10	I'm sorry. We actually used what was realized at 201 as our
	11	starting point in our estimate.
	12	Q. And how many vessels did you estimate would be
	13	needed to install GAC treatment at Saugus 1 and Saugus 2?
	14	A. Four vessels.
09:59AM	15	Q. And the consultant that you reached out to to check
	16	on prices, didn't she identify that for the GAC treatment that
	17	would be needed, given the volumes being pumped, that you would
	18	need six vessels?
	19	A. I I know that this came up in my deposition. And
09:59AM	20	I went back and and checked and consulted with my one of
	21	the engineers that works for me, Miae Jeon.
	22	MR. RICHARD: Your Honor, if I could get an answer
	23	to the question first. I'm just asking about I'll rephrase
	24	it.
09:59AM	25	Q. (BY MR. RICHARD:) Before you prepared and provided

1 your report, you reached out to another consultant regarding 2 costs for these GAC vessels; correct? That's correct. 3 Α. 4 And at that time, that consultant that you reached out to identified, based on the metrics of ten minutes' contact 09:59AM 5 time and the pumping rates for Saugus 1 and 2, that you would 6 7 need six vessels, three systems and lead-lag; is that correct? To meet the -- the standard ten-minute detention 8 Α. time, that's correct. Okay. So you do have other folks in your firm -- I 10:00AM 10 11 think you mentioned folks in your deposition -- in Sacramento 12 and Houston who routinely prepare cost estimates for these 13 types of projects? 14 That's correct. Α. 10:00AM 15 And your firm manages these types of projects; Ο. 16 correct? 17 Well, could you define "these types of projects"? Α. 18 Projects involving GAC treatment or removal of 0. 19 chemicals from groundwater. 10:00AM 20 Α. That -- that's correct. 21 Okay. And -- but is it fair to say that neither you 0. 22 or your firm would be willing to quarantee you're staying 23 behind the \$11 million number you shared with us, in part, 2.4 because it does not include any contingencies? 25 Α. That's not correct. 10:01AM

	1	Q. Is it correct that your firm that's what? GSI
	2	Consulting?
	3	A. GSI Environmental.
	4	Q. Environmental.
10:01AM	5	For the estimate you came up with in this case, your
	6	firm is not submitting that as a bid or guaranteeing that it
	7	could deliver these four treatment projects for \$11 million?
	8	You haven't done that; is that fair?
	9	A. I have not done that.
10:01AM	10	Q. So you're not your firm would not guarantee the
	11	\$11 million based on your cost estimate?
	12	A. We're not in the fixed fee guarantee business. So,
	13	no, that's not what our firm does.
	14	Q. Right.
10:01AM	15	But if the jury were to use your number of
	16	\$11 million, then my client, the water agency, would be capped
	17	at \$11 million, regardless of whatever market conditions or
	18	uncertainties occurred after that; right?
	19	A. I suppose so, yes.
10:02AM	20	MR. RICHARD: That's all I have, Your Honor.
	21	THE COURT: Mr. Gallagher.
	22	REDIRECT EXAMINATION
	23	BY MR. GALLAGHER:
	24	Q. The end wells that Mr. Najm relied on, do you
10:02AM	25	understand what kind of what chemical it was treating?

	1	A. They were originally installed to treat PFAS.
	2	Q. So not perchlorate, not VOCs; correct?
	3	A. Originally, they were installed to treat PFAS
	4	detections in those wells. Subsequent to that, low levels of
10:02AM	5	perchlorate have shown up in those wells. And so they also are
	6	treating for for perchlorate.
	7	Q. And in the end well situation, that scenario, the
	8	setup, it's not a single wellhead treatment; correct?
	9	MR. RICHARD: Objection. Leading, Your Honor.
10:03AM	10	THE COURT: Sustained.
	11	Q. (BY MR. GALLAGHER:) Do you know if it's a single
	12	wellhead treatment at the end well project?
	13	A. There are three wells that are tied together, and
	14	there's a single treatment plant. So it it appears to me
10:03AM	15	that that is much more that's much more similar to the
	16	Saugus 1 and 2 project than it is the V-201 wellhead treatment
	17	project.
	18	Q. Fair enough.
	19	Have you we talked briefly about this cost
10:03AM	20	estimating classification system. Are you familiar with the
	21	AACE guide or booklet?
	22	A. I am.
	23	Q. Is that the Bible for cost estimating?
	24	A. Well, we prepare cost estimates all the time for our
10:03AM	25	clients and we don't we don't use that.

	1	Q. So
	2	A. It is it's a tool people could use. But in our
	3	practice, we don't.
	4	Q. It's not the only tool to use; correct?
10:04AM	5	A. No.
	6	Q. And your practice for your opinion today, how
	7	would how would you describe your analysis in terms of
	8	reliability?
	9	MR. RICHARD: Objection. Vague, Your Honor.
10:04AM	10	THE COURT: Sustained.
	11	Q. (BY MR. GALLAGHER:) There's a number taking a
	12	step back. When you looked at 201 and Q-2, you developed
	13	these what did you rely on to come up with a total cost?
	14	A. The invoices that Whittaker paid.
10:04AM	15	Q. And did those invoices involve cost overruns?
	16	A. They did.
	17	Q. Okay. And you said you reached out to vendors;
	18	correct?
	19	A. Correct.
10:04AM	20	Q. And that those vendors in connection with
	21	installing wellhead treatment; correct?
	22	A. Yes.
	23	Q. All right. And what did you discuss with those
	24	vendors? What were the costs that you may have discussed?
10:05AM	25	A. Uh, the cost for treatment vessels.

1 And did you -- when you talk about design-build Q. 2 approach, in your opinion, why is that more reliable than what 3 Mr. Najm did in his cost estimating? Well, I guess the best analogy would be if you buy a 4 Α. car, you can go to a dealership and buy a car. 10:05AM 5 It's hard to do 6 these days, but you could if you wanted to. Or you could pay 7 someone to design a car and then you could buy the various 8 parts of that car and then pay someone to assemble the car. And that would -- you know, it could be done and it could --10:05AM 10 you get a car at the end. 11 But that kind of shows you the difference between 12 the approach of hiring a contractor that does this day in, day 13 out, you know, they -- they -- it's their main business, is to install these vessels. And so they do it very effectively and 14 10:06AM 15 it doesn't require a tremendous amount of engineering versus a more -- you know, I would say an approach similar to what we 16 17 did at the Saugus 1 and 2 treatment plant which involved 18 preparing very detailed plans and specs, put it out to bid, a ton of construction oversight. Some of that was needed because 19 10:06AM 20 of the complications of being in the public right-of-way and 21 having to install pipelines. 22 Q. Understood. 23 With Mr. Najm's estimates, does he still have to 24 actually go out and put this project to bid in order -- in 25 order to actually install this wellhead treatment? In other 10:06AM

	1	words, Mr. Najm is not building this wellhead treatment?
	2	A. No. No. He is he the approach he took would
	3	be much more similar to what we did for Saugus 1 and 2.
	4	Q. So in order for the agency to actually know what it
10:07AM	5	may cost, would they have to actually put it out to bid, then?
	6	A. That's correct.
	7	Q. And then they'd actually have to go through and
	8	realize the cost that would actually incur to install wellhead
	9	treatment; is that true?
10:07AM	10	A. That's correct.
	11	Q. Until until they do, how reliable are, then,
	12	Mr. Najm's estimates, in your opinion?
	13	MR. RICHARD: Objection. Vague, Your Honor.
	14	THE COURT: Sustained.
10:07AM	15	Q. (BY MR. GALLAGHER:) Going back to the DDW, I think
	16	counsel brought it up in your discussions about the VOCs. Do
	17	you recall that, that it was a concern?
	18	A. Correct.
	19	Q. Can you put that into context? Why were the VOCs a
10:07AM	20	concern to the DDW, as you understand it? And I'll hone you
	21	in, did it involve the 97-005 application process?
	22	A. That's correct. It requires a complete source water
	23	assessment.
	24	Q. And so in that complete source water assessment,
10:08AM	25	they are considering VOCs; correct?

	1	A. That's correct.
	2	Q. They also have to factor in perchlorate, I assume;
	3	correct?
	4	MR. RICHARD: Objection. Leading. Lacks
10:08AM	5	foundation.
	6	THE COURT: Sustained.
	7	Q. (BY MR. GALLAGHER:) In terms of your discussions
	8	with the agency and the 97-005 process, did they discuss the
	9	impact that a severely impaired aquifer has in this process, in
10:08AM	10	this application, permit application process?
	11	A. Not I mean, we're already engaged in the 97-005
	12	permitting process. And I should not Whittaker but the
	13	water agency. So, no, we didn't talk about in my discussions
	14	with them we we already knew that that was going on.
10:09AM	15	Q. Right.
	16	And in your discussions with the DDW, do you have an
	17	understanding of the chemicals that are being discussed as part
	18	of the 97-005 process?
	19	MR. RICHARD: I'm going to object as beyond the
10:09AM	20	scope, Your Honor, and 403 at this point.
	21	THE COURT: I'm going to sustain it on 403. We've
	22	had lots of discussions concerning this issue.
	23	MR. GALLAGHER: Sure enough.
	24	Nothing further.
10:09AM	25	THE COURT: Mr. Richard.

1 **RECROSS-EXAMINATION** 2 BY MR. RICHARD: 3 You were just asked about whether any of these Q. 4 treatment facility projects have been put out to bid. would agree that, until there are engineering plans unique to 10:09AM 5 6 each site, the project can't be put out to bid -- correct? --7 in an effective way; is that fair? I think a plan showing the configuration of the 8 Α. tanks would be needed. But if you take a design-build approach, the contractor can do a lot of that work. You don't 10:10AM 10 11 necessarily have to do all the engineering upfront. 12 the -- you get the benefit of the contractor, their experience, 13 the fact that this is what they do day in, day out to -- to do a lot of that engineering work. 14 10:10AM 15 In referring to Dr. Najm, you didn't mean to suggest that day in, day out he's not working with this and many other 16 17 water agencies on these exact type of projects, did you? 18 I don't know what he does. I'm sorry. Α. 19 Q. Oh, okay. 10:10AM 20 MR. RICHARD: That's all I have, Your Honor. 21 THE COURT: All right. You're excused. Please 22 watch your step going down. 23 THE WITNESS: Thank you. 24 THE COURT: We're still on the defense case. 25 next witness? 10:10AM

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Your Honor, the defendants would call
         1
                        MR. BLUM:
         2
            Mr. B.J. Lechler.
         3
                        THE COURT: Very well. Please present him.
         4
                        THE COURTROOM DEPUTY: Good morning, sir. Would you
            please come forward. Sir, would you please walk around, stand
10:11AM
         5
         6
            up on the witness platform. Thank you.
         7
                        Would you please raise your right hand to be sworn.
         8
                        Sir, do you solemnly swear that the testimony you
         9
             shall give in the cause now before this Court shall be the
             truth, the whole truth, and nothing but the truth, so help you
10:11AM
        10
        11
            God?
        12
                        THE WITNESS: I do.
        13
                        THE COURTROOM DEPUTY: Thank you. Please be seated.
                        Sir, for the record, would you please state your
        14
10:11AM
        15
            name and then spell your last name.
        16
                        THE WITNESS: Benjamin Lechler, L-e-c-h-l-e-r, also
             referred to as B.J., which are my initials, Benjamin James.
        17
        18
                        THE COURT: Please remove your mask, sir, and speak
        19
             into the microphone.
10:12AM
        20
                        And you may begin your direct examination.
        21
                        MR. GEE: Your Honor, just -- can we -- can my
        22
             associate approach the witness to give him the witness binder?
        23
                        THE COURT: Yes.
        24
                        MR. BLUM: Your Honor, while that's being done, are
            we going to be taking our normal break at the normal time?
10:12AM
        25
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	1	THE COURT: Yes.
	2	MR. BLUM: Thank you.
	3	THE COURT: Mr. Blum?
	4	MR. BLUM: Mr. Lechler, are you ready?
10:13AM	5	BENJAMIN LECHLER,
	6	DEFENDANT'S WITNESS, WAS SWORN AND TESTIFIED AS FOLLOWS:
	7	DIRECT EXAMINATION
	8	BY MR. BLUM:
	9	Q. Mr. Lechler, where do you currently work?
10:13AM	10	A. Jacobs.
	11	Q. And what is Jacobs?
	12	A. It's an engineering firm.
	13	Q. And what do you do there?
	14	A. I'm a hydrogeologist.
10:13AM	15	Q. And have you ever done work for the Santa Clara
	16	Valley Water Agency or any of its predecessors?
	17	A. I have, yes.
	18	Q. When did you start, sir?
	19	A. I believe the first project that I worked on
10:13AM	20	directly for the agency would have been in the late 2013 or
	21	early 2014 time frame.
	22	Q. Prior to that, did you work on for the Army Corps
	23	of Engineers on projects that related to the water agency?
	24	A. I did, yes.
10:14AM	25	Q. And the what was that project?

	1	A. It was a the name of the project was officially
	2	the Eastern Santa Clara Sub-basin Groundwater Investigation, I
	3	believe. But it was it was essentially related to regional
	4	perchlorate contamination in the Santa Clarita Valley.
10:14AM	5	Q. You were actually a contractor for the Army Corps;
	6	correct?
	7	A. Correct. Yes.
	8	Q. But half of the funding for the project was done by
	9	the water agency; right?
10:14AM	10	A. The water agency, I believe, provided in-kind
	11	matching funding for that project, yes.
	12	Q. Now, as of the last month or two, do you have any
	13	responsibilities relating to the water agency?
	14	A. The last month or two, yeah. I I've worked on
10:14AM	15	some other projects related to groundwater modeling in the
	16	recent past.
	17	Q. Prior to your testimony today, did you meet with
	18	anybody at the water agency to prepare?
	19	A. Anybody at the water agency?
10:15AM	20	Q. Or their counsel.
	21	A. Uh, I I spoke with Nossaman who is my counsel as
	22	well.
	23	Q. And what did you guys talk about?
	24	MR. GEE: Objection. Attorney-client privilege.
10:15AM	25	THE COURT: Sustained.

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1
                        (BY MR. BLUM:) Is the firm that Mr. Gee represents
                  Q.
         2
            providing you counsel in this case?
         3
                        THE COURT: He responded "Yes." Ask another
         4
             question, please.
                        (BY MR. BLUM:) Did you review your deposition
10:15AM
         5
         6
            before you testified?
         7
                  Α.
                        I did, yes.
         8
                  Q.
                        Why?
                        Because I figured it was relevant to my testimony.
                  Α.
                        Okay. Sir, do you recall in approximately October
10:15AM
        10
                  Ο.
        11
             of 2010 having a conversation with James Leserman concerning an
        12
             investigation that might be done into the source of VOC
             contamination?
        13
        14
                        I can't recall a specific conversation, but we had
10:16AM
        15
             conversations on that -- on that subject.
        16
                        All right. One of the -- in one of the notebooks in
                  Q.
        17
             front of you, there's an Exhibit 1410. If you could take a
        18
             look at it, please.
        19
                        Uh, I need to figure out how to --
                  Α.
10:16AM
        20
                  Q.
                        Sure.
        21
                        -- get to the appropriate one. So the exhibits here
                  Α.
        22
             go up to 1409.
        23
                        THE COURT: There should be another volume.
        24
                        THE COURTROOM DEPUTY: May I assist, Your Honor?
        25
10:16AM
                        THE COURT: Please do.
                                                 Thank you.
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1
                        THE COURTROOM DEPUTY: He's correct. The last
         2
             exhibit here is 1409.
         3
                        THE COURT: Maybe you can move to another subject,
         4
             please.
                        (BY MR. BLUM:) In 2015, did you prepare a written
10:17AM
         5
                  Ο.
         6
             report of an investigation you did?
         7
                  Α.
                        Yes.
                        And that's -- isn't that in the binder that you were
         8
                  Q.
             given by counsel for -- by the water agency?
                        I have not looked at it yet so -- I can look.
10:17AM
        10
        11
             And -- and there's two reports that I authored in 2015. One
        12
             was for the agency, and one was for the Army Corps of
        13
             Engineers. I assume you're referring to the one for the
        14
             agency?
10:17AM
        15
                  Q.
                        Yes, sir.
        16
                        What's the title of that report?
        17
                        Saugus Formation Volatile Organic Compound
                  Α.
        18
             Investigation Report.
        19
                        Okay. And, sir, are you the author of that report?
                  Q.
10:17AM
        20
                  Α.
                        Yes.
        21
                        Okay. And prior to that report being finalized, did
                  0.
        22
             you send a copy to the water agency so they could comment on
        23
             it?
        2.4
                  Α.
                        I believe I did, yes.
                        And they did comment on it; right?
        25
10:18AM
                  Q.
```

	1	A. I believe I received comments. I don't recall who
	2	from. But yeah, I received some comments.
	3	Q. And those comments were incorporated into the final
	4	version?
10:18AM	5	A. I would believe that we addressed the comments in
	6	some way, yes.
	7	Q. Okay. And the report was prepared for the agency,
	8	but you were aware that it was being that it was probably
	9	going to be sent to the Department of Toxic Substances Control
10:18AM	10	also?
	11	A. Yes.
	12	Q. And, sir, at the time you wrote that report and sent
	13	it off as the final form to the agency, you believed that there
	14	was nothing in the report that was incorrect or misleading;
10:18AM	15	isn't that right?
	16	A. That's correct.
	17	Q. Okay. And at the time of your deposition, you also
	18	believed that there was nothing in the report that was
	19	incorrect or misleading; is that correct?
10:19AM	20	A. That's correct.
	21	Q. And when was your deposition, sir?
	22	A. I don't remember the exact date. I believe it was
	23	in 2019 at some point.
	24	Q. Does September 25th, 2019, refresh your
10:19AM	25	recollection?

	1	A. That sounds appropriate.
	2	Q. Okay. Alrighty.
	3	And wasn't the conclusion of the report that it was
	4	possible that either SIC or Whittaker was the source of the
10:19AM	5	VOCs in the wells at issue but that more information needed to
	6	be gathered before any further conclusions could be made?
	7	A. Uh, can I refer to the report?
	8	Q. Well, do you know without referring to the report,
	9	Mr. Lechler?
10:19AM	10	A. I I know in general, um, but I'm not exactly sure
	11	how it was phrased in the report. And I prefer to go with how
	12	my report was prepared as far as the phrasing of
	13	Q. Well, regardless of the phrasing, was the gist of
	14	your conclusion as to who was the source, was that you could
10:20AM	15	determine possible sources but that you needed to gather more
	16	information to go anywhere beyond possible?
	17	A. The gist of the conclusion was that Whittaker was
	18	the source of TCE to the Saugus wells, likely source of PCE to
	19	the Saugus wells, and that Saugus Industrial Center is also a
10:20AM	20	potential source. But in order to characterize the VOCs from
	21	either site, there was additional work that was recommended for
	22	both facilities to conduct to understand the full extent of
	23	their VOC contamination.
	24	MR. BLUM: If we could go to page 61, line 5,
10:20AM	25	through 62, line 1 of Mr. Lechler's deposition, please.

	1	MR. RICHARD: Whoa. Hold on. Your Honor?
	2	THE COURT: Yes. One moment, please.
	3	MR. BLUM: I'm waiting, Your Honor, for them.
	4	MR. RICHARD: No, it came up.
10:21AM	5	THE COURT: Please don't respond, Mr. Blum.
	6	MR. BLUM: I apologize, Your Honor.
	7	MR. RICHARD: May I have the page and line again? I
	8	didn't catch it from Mr. Blum.
	9	MR. BLUM: 61, line 5, through 62, line 1, with a
10:21AM	10	break to excise out counsel objections.
	11	MR. GEE: Objection. Improper impeachment.
	12	THE COURT: One moment.
	13	I'm going to sustain the objection.
	14	Q. (BY MR. BLUM:) Mr. Lechler, did you did you
10:22AM	15	conclude that it was only possible that the VOCs were caused by
	16	either SIC or Whittaker?
	17	A. What I just said prior to this was was what I
	18	believe is how it's phrased in the report. During my
	19	deposition, I may have said that it was a possibility, but I
10:22AM	20	stand by what's in my report.
	21	Q. Would you agree with me in your deposition when you
	22	were asked the question, you said that what you concluded was
	23	that it was possible?
	24	MR. GEE: Objection. Asked and answered.
10:22AM	25	THE COURT: I'm going to sustain this on 403 grounds

```
1
            as well, given its probative value.
         2
                        (BY MR. BLUM:) Sir, wasn't the conclusion -- didn't
         3
            you conclude that you used the words -- that you couldn't even
         4
             say that it was probable that it was Whittaker?
                        THE COURT: Are you talking about his report or his
10:23AM
         5
         6
             deposition?
         7
                  0.
                        (BY MR. BLUM:) Your deposition. Didn't you say
             that you couldn't even conclude that it was probable that it
         8
            was Whittaker?
                        Again, I may have said something in my deposition,
10:23AM
        10
        11
            but I do stand by what's in my report here.
        12
                        Did you say in your deposition that you couldn't
                  Q.
        13
             even say that it was probable?
        14
                        THE COURT: Ask another question, please.
                        (BY MR. BLUM:) Sir, didn't you describe Whittaker
10:23AM
        15
                  Ο.
        16
             and SIC as potential sources?
        17
                        THE COURT: Again, is this the deposition you're
        18
             talking about?
        19
                        MR. BLUM: Yes, sir.
10:23AM
        20
                        THE WITNESS: I may have said that in my deposition,
        21
            yes.
        22
                        (BY MR. BLUM:) Okay. Today do you believe that
                  Q.
        23
            Whittaker is more than a potential source of VOCs?
        24
                  Α.
                        I have not -- excuse me. I have not seen any
             information since I prepared this report to change any of the
10:23AM
        25
```

```
1
             conclusions of the report. And as I said before, the report
         2
             does state that Whittaker is a source of TCE in the two Saugus
         3
            wells. And I -- I stand by the findings of the report.
                        All right. Now, if you look at the report, if you
         4
                  Ο.
             can go to page 1, please, Exhibit 34.
10:24AM
         5
         6
                  Α.
                        Page 1?
         7
                        I'm sorry. It's not page 1. It's page 34.6.
                  Q.
         8
                  Α.
                        Okay.
         9
                        And you see where it says the section under Purpose
                  Q.
             and Objectives?
10:24AM
        10
        11
                        MR. GEE: Excuse me, Counsel. Did you say 34.6 or
        12
             34.8?
        13
                        MR. BLUM: .6, Purpose and Objectives.
                        THE WITNESS: Yeah, I have different numbering in
        14
10:24AM
        15
             the hard copy that I have up here.
                        (BY MR. BLUM:) All right. Well, it's --
        16
                  Q.
             Introduction, Section 1, Section 1.1.
        17
        18
                        I see it on the screen here, yes.
                  Α.
                        All right. And this is a section you wrote;
        19
                  Q.
10:25AM
        20
             correct?
        21
                  Α.
                        Yes.
        22
                        And the purpose of this section was to identify why
                  Q.
        23
             the report was being written; correct?
                        I believe so. Yes.
        2.4
                  Α.
        25
                        And didn't you write in the second-to-the-last
10:25AM
                  Q.
```

```
1
             sentence -- do you see where it says, "The purpose of this
         2
             investigation"? Can you read that -- that sentence, please?
         3
                        "The purpose of this investigation is to identify
                  Α.
            potential sources of VOCs detected in the Saugus formation
         4
            wells."
10:25AM
         6
                        So the reason the report was written was to identify
         7
            potential sources; correct?
         8
                  Α.
                        That's what it says, yes.
                        And was that why you wrote the report?
                  Q.
                        Yes. That was the object -- one of the objectives
10:25AM
        10
                  Α.
        11
             of the report.
        12
                        Wasn't it true that was your understanding that,
                  Q.
        13
             after this report was written, there was going to be a
             follow-up report to deal with something -- who was -- something
        14
10:26AM
        15
            beyond a potential source?
        16
                        MR. GEE: Objection. Lacks foundation.
        17
                        THE COURT: You can answer the question. Did you
        18
            have an understanding on that subject?
        19
                        THE WITNESS: I did not. To me, this was a
10:26AM
        20
             standalone document.
        21
                        (BY MR. BLUM:) All right. Now, in Section 3 of the
                  Ο.
             report where it says -- at least my page 34.14, but it's
        22
        23
            page 3-1, if that helps.
        2.4
                        What was the purpose of that section?
        25
10:26AM
                  Α.
                        I believe the purpose -- excuse me. The purpose of
```

1 this section was to outline the process that was used to arrive 2 at the potential sources of VOCs. 3 Alrighty. And then you identified Whittaker as one Q. of the potential sources; correct? 4 10:27AM 5 During the screening process, yes. 6 And all you did was identify them as a potential 7 source, nothing beyond that; right? 8 Α. During the screening process, yes. And then subsequent to that, there was additional looks at each of the 10:27AM 10 potential sources to evaluate the data with respect to each of 11 those potential sources to arrive at some conclusion as to if 12 they were a source. 13 And one of the things you did is you identified what's called data gaps; correct? 14 10:27AM 15 That is correct. I believe there's a summary of the data gaps that were identified in the conclusions -- or the 16 17 last section of the report. 18 What is a data gap, sir? 0. It's an area -- I guess I most simply could describe 19 Α. 10:28AM 20 it as an area where additional data would provide more 21 information. 22 And what was the purpose of your report in 23 identifying these data gaps? 2.4 Α. I believe the data gaps were identified specifically 25 with -- with respect to the distribution of VOCs relating to 10:28AM

1 each of the potential sources and areas that they could collect 2 additional data or information to better characterize the 3 distribution of those VOCs in groundwater. 4 0. Okay. And, um, now, if you can go to Section 6 of your report, please. Tell me when you're there. 10:28AM 5 6 Α. I'm there. 7 Ο. I'm sorry. It's 34.32. All right. What's -- and this is about a 8 9 discussion. And please tell me what's the purpose of this 10 section. 10:29AM 11 Α. Well, I think the two areas that are -- the two main 12 subsections within this section are summary of the findings of the overall investigation and then recommendations and 13 conclusions, I think, specifically focused on those data gaps 14 we discussed and future work. 10:29AM 15 16 Now, how did you refer to the sources that there Ο. 17 were data gaps for? Did you refer to them as actual sources or 18 potential sources? I -- I'd have to look in the report to see how they 19 10:29AM 20 were referred to. 21 Well, let me help you. If you see under Discussion, Ο. 22 do you see where it says, "Recommendations for investigation of 23 potential sources of VOCs"? Now, who were these potential 2.4 sources you were referring to? 25 10:30AM Α. Again, going back to the -- to the screening

```
1
            process, the potential sources were Whittaker and Saugus
         2
             Industrial Center.
                        Okay. Now, didn't you conclude that Whittaker and
         3
                  Q.
             SIC are considered the potential sources for TCE and PCE
         4
             detected in Saugus 1 and Saugus 2?
10:30AM
         5
         6
                        Uh, I don't know if that's -- I know in the summary
         7
             of the findings there was a conclusion that there's multiple
             lines of evidence to suggest that Whittaker -- the former
         8
            Whittaker-Bermite facility is the source of TCE in Saugus 1 and
             Saugus 2.
10:31AM
        10
        11
                        And then the following paragraph goes on to explain
        12
             that Saugus Industrial Center, though a less likely source, is
             still a potential -- still a potential source. And there was
        13
             additional investigation required in order to, I quess, rule
        14
10:31AM
        15
             them out as a contributing source.
        16
                        All right. Now, if -- let's go to page -- well,
                  Q.
             it's Bates stamp 34.33, but it's page 6.2 of the report.
        17
        18
                  Α.
                        Yep.
        19
                        MR. BLUM: And if you can highlight the whole first
10:31AM
        20
            paragraph, please, Rick.
        21
                        (BY MR. BLUM:) Now, there may be lines of evidence
                  0.
        22
             to support the conclusion that Whittaker is a source.
        23
             isn't it true you also -- when you refer to Whittaker, you
        2.4
             refer to them as a potential source?
        25
10:32AM
                  Α.
                        When referring to the screening process, yes.
```

```
1
                        Okay. And you said that -- the last sentence,
                  Q.
         2
             "Saugus Industrial Center and former Whittaker-Bermite facility
         3
             are considered the potential sources of TCE and PCE"; correct?
         4
                  Α.
                        That's what's said here in the summary of the
             screening process, yes.
10:32AM
         5
         6
                        Now, the information that you've said -- where you
         7
             said they are the source, where was that?
                        Where is that -- where is that said in the report?
         8
                  Α.
                        Sure. Exactly.
                  Q.
                        It would be on the -- the previous page, um,
10:32AM
        10
        11
             Section -- Section 6.1, looks like the second paragraph under
        12
             that section heading. There's -- there's one paragraph
             regarding Whittaker, and then there's a following paragraph
        13
        14
             regarding Saugus Industrial Center. So it would be on 34- --
             or 34.32.
10:33AM
        15
        16
                  0.
                        Okay.
        17
                        Middle -- middle of the page.
                  Α.
        18
                        And that talks about lines of evidence in support of
                  0.
        19
             your conclusion; correct?
10:33AM
        20
                  Α.
                        That's right.
        21
                        Do you ever say they're not a potential source,
                  0.
        22
             they're an actual source -- words to that effect, that we don't
        23
             have to imply anything into it?
        2.4
                  Α.
                        I think the first sentence of that second paragraph
        25
             says that -- that Whittaker-Bermite is a source of TCE.
10:33AM
```

```
1
                        Now, one of the things you also did --
                  Q.
         2
                        MR. BLUM: Your Honor, I'm going to move on to a
         3
            different subject. If you want to take a break, it's a good
         4
             time.
10:33AM
         5
                        THE COURT: Oh, yes. Thank you, Counsel.
         6
                        It is now 10:33. We'll break until 10:48.
         7
             take our 15-minute break.
         8
                        Please remember not to speak to anyone about the
         9
             case, the people, or the subject matter involved. Continue to
10:33AM
        10
             keep an open mind.
        11
                        See you in 15 minutes.
        12
                        THE COURTROOM DEPUTY: All rise for the jury,
        13
            please.
        14
                        (Out of the presence of the jury:)
                        THE COURT: We're in recess until 10:48.
10:34AM
        15
                        (Break taken.)
        16
        17
                        (In the presence of the jury:)
        18
                        THE COURT: We remain on the record in the trial
        19
            matter with all present who were present before the break,
10:52AM
        20
             including the witness.
        21
                        And you understand you remain under oath?
        22
                        THE WITNESS: I do.
        23
                        THE COURT: You may continue with your direct
        24
             examination.
        25
10:52AM
                        MR. BLUM: Thank you, Your Honor.
```

```
1
                        (BY MR. BLUM:) I think now you have Exhibit 1410 in
                  Q.
         2
             front of you -- or in one of the binders?
         3
                        Yes.
                  Α.
         4
                        Can you take a look at it, please. And particularly
             to the e-mail that has a subject entitled, "conversation with
10:52AM
         5
         6
             Jim L." I believe it's from you; correct?
         7
                        I -- I'm looking at the e-mail now, yes, there's --
                  Α.
             there's an e-mail and a response and the original e-mail came
         8
             from me. Yes.
                        The original e-mail was from you to who?
10:53AM
        10
                  Ο.
        11
                  Α.
                        To my co-worker Yueh Chuang.
        12
                        And who is that?
                  Q.
                        He was my -- a co-worker of mine. He was the
        13
             project manager for the -- the Army Corps of Engineers project
        14
             that we talked about earlier.
10:53AM
        15
        16
                        And for the court reporter's sake, can you spell it?
                  Q.
        17
                  Α.
                        Spell --
        18
                  Q.
                        Chuang.
                        Oh. First name Yueh, Y-u-e-h. Last name is Chuang,
        19
                  Α.
10:53AM
        20
             C-h-u-a-n-q.
        21
                  Q.
                        Okay. And you --
        22
                        MR. GEE: Objection, Your Honor. Hearsay.
        23
                        MR. BLUM: I haven't asked a question.
        24
                        MR. GEE:
                                  Sorry.
        25
                        THE COURT: Is there an objection?
10:53AM
```

```
1
                        MR. GEE: No, Your Honor. I'm sorry.
         2
                        THE COURT: You may proceed.
         3
                        (BY MR. BLUM:) And in that e-mail, you summarized a
                  Q.
         4
             conversation you had with Jim L.; correct?
                  Α.
10:54AM
         5
                        Yes.
         6
                        And Jim L. is James Leserman; correct?
                  Q.
         7
                  Α.
                        That's correct, yes.
                        Did Mr. Leserman tell you anything that's summarized
         8
                  Q.
             in this e-mail concerning whether or not the Department of
        10
10:54AM
             Public Health wanted the water agency to conduct an
        11
             investigation as to the sources of VOCs?
        12
                        I believe -- I believe in my e-mail I -- I
                  Α.
        13
             summarized that he expressed concern -- or that DPH, the
        14
             Department of Public Health, expressed concern about VOCs.
                                                                           Ι
10:54AM
        15
             did not say anything about the Department of Public Health
        16
             requesting an investigation.
        17
                        I -- I go on to summarize that Castaic Lake Water
        18
            Agency would potentially like to investigate the VOC source.
        19
                        MR. BLUM: Your Honor, may I publish Exhibit 1410?
10:55AM
        20
                        THE COURT: Yes.
        21
                        MR. BLUM: If we can blow up the bottom part.
        22
                        (BY MR. BLUM:) Alrighty. And did Mr. Leserman also
                  Q.
        23
             tell you that at the time he wasn't sure whether Whittaker was
             the source?
        2.4
        25
                        Uh, yeah. I think in the e-mail I summarized that
10:55AM
                  Α.
```

```
1
            he acknowledged that it may or may not be Whittaker.
                        That was the source of the VOCs and the wells
         2
         3
             operated by the water agency; correct?
                  Α.
                        That's correct.
         4
                        MR. BLUM: Your Honor, this may be technical.
10:56AM
         5
         6
             would move 1410 into evidence.
         7
                        THE COURT:
                                    It's received.
                        (Exhibit 1410 received into evidence.)
         8
                        (BY MR. BLUM:) Now, I want to move back to your
                  0.
             report and I want to move beyond the report to the date of your
10:56AM
        10
        11
             deposition in September of 2019.
        12
                        On that date, looking at the totality of the
        13
             information you had at that moment, not just the report but
        14
             everything you had at your disposal, isn't it true that the
             only thing you could conclude based on all that information was
10:56AM
        15
             that Whittaker was a -- was that there was a possibility that
        16
            Whittaker was a source?
        17
        18
                  Α.
                        It sounds accurate that I said that in my
             deposition.
        19
10:56AM
        20
                  Ο.
                        So was that -- when you said in your deposition in
        21
             2019 that, based on all the information at your disposal, that
        22
             there was only a possibility that Whittaker was a source, was
        23
             that the truth?
        2.4
                  Α.
                        That's what I said in my deposition. But I, again,
        25
            do stand by the -- the report that I prepared and do believe
10:57AM
```

	1	that nothing has changed my mind on the findings about either.
	2	Q. Was it the truth let me back up.
	3	In 2019, you had already published the report;
	4	correct?
10:57AM	5	A. Correct.
	6	Q. So when you said at your deposition under oath that
	7	there was only a possibility that Whittaker was the source, you
	8	were taking into account the report you wrote four years
	9	earlier; right?
10:57AM	10	MR. GEE: Objection. Asked and answered.
	11	Argumentative.
	12	THE COURT: Overruled.
	13	You may answer.
	14	THE WITNESS: Again, I believe that, you know, the
10:57AM	15	semantics around adjectives I may have said in my deposition.
	16	But again, reviewing my report in its current state or in my
	17	current state of the knowledge of data in that area, I stand by
	18	what's said in the report.
	19	Q. (BY MR. BLUM:) Sir, when you say semantics as to
10:58AM	20	language, are you saying that the word "possible" and the word
	21	"likely" are the same thing, they mean the same thing?
	22	A. I I'm saying that maybe I said something in my
	23	deposition that I didn't have time to quite think through.
	24	Looking back at the findings in the report, I agree with them.
10:58AM	25	Q. Isn't it true that in your deposition, you were

```
1
             asked -- several times you repeated the word that your
         2
             conclusions were only that Whittaker was a possible source.
         3
            This wasn't a one-off.
         4
                        I -- I don't recall how many times I may have said
             that in my deposition.
10:58AM
         5
                        MR. BLUM: Your Honor, may I refresh the witness's
         6
         7
            recollection on that issue?
                        THE COURT: Under 403, I think we've gotten as much
         8
            as you're going to get on this.
                        (BY MR. BLUM:) Now, Mr. Lechler, as a
10:58AM
        10
        11
            hydrogeologist, would you agree with me that in order for
        12
            Whittaker to be the source of the contamination at the wells at
        13
             issue, there has to be a pathway for the VOCs to travel from
        14
            Whittaker to those wells?
10:59AM
        15
                        Uh, I'm not exactly sure what you're asking, but,
            yes, I mean, the VOCs -- if Whittaker is the source, they need
        16
        17
             to somehow get from the property to the well.
        18
                        And isn't it correct in your report, when you
        19
            discuss those pathways, you describe them as potential
10:59AM
        20
            pathways?
        21
                        Yes. Because there's -- there's -- there's not one
                  Α.
        22
            given pathway that's been necessarily confirmed, um, and I also
        23
            believe that there could be more than one pathway for
        2.4
             contamination to arrive at those wells.
        25
                        Well, isn't it true that each pathway you discussed,
10:59AM
                  0.
```

```
1
            the only reference you made to it was that a -- either as a
         2
             conceptual pathway or a potential pathway?
         3
                        I -- I'd have to refer to the report as far as how
                  Α.
         4
             I'd describe it to them. But, yes, the intent of those
            pathways that were outlined in the report was to show
11:00AM
         5
         6
             conceptually how contamination could arrive at the wells from
         7
            various sources. And it was not meant to illustrate an actual
         8
            physical pathway because those are very complicated underground
            pathways that, you know, can't be -- can't be described or
        10
            understood as simply as showing them in that conceptual manner.
11:00AM
        11
                        Well, to go further, isn't it correct that all of
        12
             the pathways for the travel of VOCs from the Whittaker site to
        13
             the wells were only hypotheticals? Every single one.
        14
                        Uh, I -- again, I don't -- I don't know about
11:01AM
        15
            hypothetical.
                            I think it was more of a conceptual -- you know,
        16
             conceptualization as to how it could get there from various
        17
            areas.
                        MR. BLUM:
        18
                                   Your Honor, I'd like to refer to his
        19
             deposition, page 210, lines 3 through 13.
11:01AM
        20
                        MR. RICHARD: I'm sorry. What lines?
        21
                        MR. BLUM: 3 through 13.
        22
                        MR. RICHARD:
                                      Thank you.
        23
                        THE COURT: You may proceed.
        24
                        Perhaps you can read it, Mr. Blum.
        25
                        MR. BLUM: Sure.
11:02AM
```

```
1
                                    It happens with technology. If he has
                        THE COURT:
         2
             it ready, he can play it. Otherwise, maybe you should read it.
                        MR. BLUM: All right.
         3
                        "QUESTION: Mr. Lechler, you talked in some
         4
                of the questions relating to SIC's counsel that the
11:02AM
         5
         6
                pathways described in Figure 4-3 were actually --
         7
                I think you said hypothetical pathways.
         8
                        "But you can't say one way or another whether
         9
                they actually are occurring.
                        "ANSWER:
                                  That's true.
11:03AM
        10
        11
                        "OUESTION: That would be true for all the
        12
                different pathways that you looked at in this report;
        13
                correct? They're hypotheticals?
                                  That's true, yes."
        14
                        "ANSWER:
11:03AM
        15
                        (BY MR. BLUM:) Were all of the pathways you looked
             at in -- were all the pathways you looked at in your report
        16
        17
            purely hypotheticals?
        18
                        I mean, that's what I said here in my deposition.
        19
            Again, I believe this is a case of semantics to some degree and
11:03AM
        20
             that the intent of what was presented in the report was to show
        21
             conceptually, hypothetically, whatever word you want to use,
        22
            how things could get from one area to another, um, and it was
        23
            not meant to illustrate an exact pathway because that's
        24
             essentially impossible due to the underground nature of this
        25
            migrating contamination.
11:04AM
```

	1	Q. All right. Now, I want to look at one of your
	2	diagrams that discussed one of those hypothetical pathways,
	3	Figure 5-5. I'm sorry. It's on page 34-6363.
	4	MR. BLUM: And if we can blow up the one to the
11:04AM	5	left.
	6	Q. (BY MR. BLUM:) All right. Sir, this is one of the
	7	hypothetical pathways that you disclosed in your report; isn't
	8	that true?
	9	A. Yes. This is from the report.
11:04AM	10	Q. And didn't you describe this in your deposition as a
	11	cartoonish depiction?
	12	A. I believe I probably did, yeah.
	13	Q. But you're not saying that the VOCs actually
	14	traveled along this pathway, are you?
11:05AM	15	A. Again, not this exact pathway. This is meant to
	16	illustrate conceptually in a large scale, big picture, how
	17	water could flow from one area to another.
	18	Q. And in order to determine whether this is anything
	19	more than a hypothetical, you recommended a further
11:05AM	20	investigation be done; correct?
	21	A. Uh, the recommendation was more based on, um,
	22	delineating the extent of the contamination. And along with
	23	that, you would, I guess, provide some more certainty as to
	24	whether or not some of these potential pathways existed.
11:05AM	25	Q. All right. And, sir, in your conclusion, in your

	1	report, you recommended that if this additional work verified
	2	that Whittaker was a source and a pathway existed, only then
	3	should a request made be made to DTSC to order a further
	4	investigation; correct?
11:06AM	5	A. Uh, I'd have to refer to the report to know exactly
	6	how I what I said.
	7	Q. If we can put up page 34.36, which is page 6-5.
	8	And "If additional characterization activities," if
	9	you could read that to yourself, please.
11:06AM	10	A. Uh, yeah. It says read it out loud or
	11	Q. Well, when you say, "If additional characterization
	12	activities," does that refer to the subsequent investigation
	13	that you recommended?
	14	A. I believe it does, yes.
11:07AM	15	Q. Was that ever done?
	16	A. Um, not to my knowledge, no.
	17	Q. And if those confirm that the former Whittaker site
	18	VOCs are migrating, then DTSC should require certain things;
	19	correct?
11:07AM	20	A. It says that, yes, if if those confirm the
	21	contamination is related to the facility, that DTSC should
	22	require amending Whittaker's RAP, remedial action plan, to
	23	address those VOCs.
	24	Q. And would you then agree, since those recommended
11:07AM	25	activities have never been done, there should be no reason for

```
1
             DTSC to amend anything?
         2
                        Well, I -- I believe -- or earlier in the report, it
         3
             was also stated that the intent of the report was to outline --
         4
             it was either in the report or the cover letter for -- you
             know, this report to be a basis to work with DTSC to have these
11:08AM
         5
         6
             potential sources do these investigations that were
         7
             recommended.
                        Well, didn't DTSC actually respond to this report?
         8
                  Q.
                  Α.
                        They did, yes.
                        And -- did you read the letter actually that you got
11:08AM
        10
                  Ο.
        11
             that was sent to the water agency about the report?
        12
                        I believe I did, yes.
                  Α.
        13
                  Q.
                        All right.
                        MR. BLUM: Your Honor, that letter is Exhibit 12.
        14
11:08AM
        15
             May I publish it?
        16
                        MR. GEE: No objection.
        17
                        THE COURT: You may.
        18
                        (Exhibit 12 received into evidence.)
                        (BY MR. BLUM:) And is this the letter dated
        19
                  Q.
11:08AM
        20
             September 12th, 2017 -- 2016, that was written to Mr. Stone
        21
             relating to your investigation?
        22
                        It does look like it, yeah.
        23
                        Okay. Now, did DTSC after looking at your report
        24
             recommend anything further should be investigated as to
        25
             Whittaker -- as to the Whittaker site?
11:09AM
```

	1	A. I believe they have not made any any they have
	2	not issued any orders to either Whittaker or Saugus Industrial
	3	Center to do any investigation. And in the closing of this
	4	letter or somewhere in the letter they recommend that the
11:09AM	5	agency be the one to approach each of these parties and try to
	6	essentially solve the problem themselves, which, to me, is
	7	surprising because in these cases, typically it's the
	8	responsibility of of the polluter to characterize the full
	9	extent, both vertically and laterally, where they've impacted
11:09AM	10	groundwater.
	11	Q. That wasn't my question.
	12	My question was: Did DTSC suggest to Mr. Stone that
	13	any further investigation of the Whittaker site was required?
	14	A. I would need to read through the letter to to
11:09AM	15	decide if if they did or not. I don't recall.
	16	Q. It's only two pages.
	17	A. Okay. I can I can read it.
	18	THE COURT: I'm going to this is in evidence.
	19	Let's move on under 403.
11:10AM	20	Q. (BY MR. BLUM:) Let's go to the second page.
	21	All right. DTSC recognized that SIC and Whittaker
	22	were the most likely sources; correct?
	23	A. That's what it says, yes.
	24	Q. All right. And they they suggested that further
11:10AM	25	investigation needed to be done of the SIC site; correct?

	1	A. I believe they have that in there, yes.
	2	Q. Okay. And in that suggestion, didn't they conclude
	3	that the highest levels of TCE in the groundwater were
	4	emanating not from Whittaker but from SIC?
11:10AM	5	A. That says that there, yeah. I don't know if I would
	6	agree with that but
	7	Q. Now, after Mr. Stone received this letter, did the
	8	water agency take any efforts to do the investigation suggested
	9	by Mr. Diaz of the Department of Toxic Substances Control?
11:11AM	10	MR. GEE: Objection. Lacks foundation.
	11	THE COURT: Sustained.
	12	Q. (BY MR. BLUM:) Do you know whether Mr. Stone or
	13	anybody at the water agency took any actions to do the further
	14	investigation recommended by the department?
11:11AM	15	MR. GEE: Objection. Calls for speculation.
	16	THE COURT: I'll allow the answer.
	17	Yes or no, do you know one way or the other?
	18	THE WITNESS: I do not.
	19	Q. (BY MR. BLUM:) All right. Now, the investigation
11:11AM	20	you did relate
	21	MR. BLUM: Hold on a minute, Your Honor.
	22	Q. (BY MR. BLUM:) I want to talk about SIC. Now,
	23	before we do that, I want to talk about some terms so that
	24	we're we're using the the same meaning.
11:12AM	25	Contamination can reach a an underground source,

```
1
             either moving horizontally or vertically; correct? I'm not
         2
             suggesting those are the only ways, but those are two of the
         3
             options.
                        I -- yeah. I -- I think there's a lot of variations
         4
                                Those -- those would be the two main -- main
11:12AM
         5
             on that, but yes.
         6
             directions.
         7
                        So, for instance, if in the Whittaker site, if there
                  Ο.
            was a spill on the surface at Whittaker that migrated down to
         8
             the groundwater, theoretically that contamination can move
            horizontally with the aguifer and contaminate S-1 or S-2;
11:12AM
        10
        11
             correct?
        12
                  Α.
                        Yes.
                        Isn't it also true that if there is a spill at SIC
        13
             and the water -- in the water above the well, that water can
        14
11:13AM
        15
            move vertically down to the well? Correct? I'm sorry.
             contamination can move vertically down to the well.
        16
        17
                  Α.
                        That's a possibility, yes.
        18
                        All right. Now, you would agree with me that there
             are documented releases of VOCs, specifically TCE, at the, um,
        19
            SIC site?
11:13AM
        20
        21
                  Α.
                        Based on the reports that I've read, yes.
        22
                        Okay. And wouldn't you agree with me that the
                  Q.
        23
            pathway -- sorry -- or the way it's migrating is west, towards
        2.4
             the Saugus wells?
        25
                        I would agree that the regional groundwater flow
11:14AM
                  Α.
```

```
1
            direction is west throughout the entire area.
         2
                        Okay. And you would also agree with me that it has
         3
            migrated at least to the location where the Saugus wells exist;
             correct?
         4
                        I think there's -- I believe in the report it's
11:14AM
         5
         6
             outlined that there's a -- there's a likely chance that there's
            contamination detected across the street from SIC related to
         7
         8
            SIC, yeah.
                 Q. Well, if we can go to your report, page 34.58. It's
            actually Figure 4-2. Can you describe for the jury what
11:14AM
        10
        11
            Figure 4-2 is?
        12
                  Α.
                        Uh, well, the intent of this figure is to show the
             recommended monitoring wells which are shown in the four --
        13
             four circles numbered 1 through 4. Under that is contours
        14
11:15AM
        15
            of -- what's the page?
        16
                        It's -- it's the wrong page. I had it wrong.
                 Q.
        17
                        MR. GEE: Counsel, did you want him to complete his
        18
            answer?
        19
                        MR. BLUM: Yes.
11:15AM
        20
                        THE COURT: Let's go ahead and put the figure up
        21
             that he was describing for now.
        22
                        MR. BLUM: Go ahead and put that figure back.
        23
             Sorry. Okay.
                        THE WITNESS: So, again, there's four areas where
        24
        25
            there's additional investigation recommended. Below that is an
11:15AM
```

```
1
             interpreted plume of TCE, I believe -- yes, TCE concentrations
             that show, as interpreted, TCE exit -- you know, leaving the
         2
         3
             SIC site and flowing to the west.
                        MR. BLUM: All right. If we could put up 34.56,
         4
             which is Figure 4-2. And if you can blow up the one to the
11:16AM
         5
         6
             left.
         7
                  Q.
                        (BY MR. BLUM:) Now, these are contour lines;
         8
             correct?
                  Α.
                        Um, that's -- yeah. That's a way to refer to them.
                        And does it show -- and you're contouring in this
11:16AM
        10
                  Ο.
        11
             diagram the extent of the TCE contamination emanating from SIC;
        12
             correct?
                        That's correct. Yes.
        13
                  Α.
        14
                        And is Saugus 1 within the contour for TCE emanating
                  0.
             from SIC?
11:16AM
        15
        16
                        Yes, in plan view.
                  Α.
        17
                        Can you show the jury where Saugus 1 is?
                  Q.
        18
                        Um --
                  Α.
        19
                        Just draw with your finger.
                  Q.
11:17AM
        20
                  Α.
                        (Indicating.)
        21
                        Okay. And where is Saugus 2?
                  Q.
        22
                         (Indicating.)
                  Α.
        23
                        Okay. Now, when these wells are operating, they
        24
             produce something called a capture zone; correct?
        25
                  Α.
                        Yeah.
11:17AM
```

	1	Q. What is a capture zone?
	2	A. It's basically the area the area that that I
	3	guess water flows towards the well from.
	4	Q. In other words
11:17AM	5	A. But the but the I guess there's two issues
	6	here, is we have what what you see in map view and then
	7	there's also what is happening in cross sectional view.
	8	Q. Sir, my question was did you answer the question
	9	fully what a capture zone is?
11:18AM	10	A. Yeah. I believe so. Yeah.
	11	Q. And would you agree that the that you have
	12	described the capture zone for well S-1 as large?
	13	A. "Large" is a relative term. I mean, it's yeah.
	14	I mean, it influences water flows to it from a large area,
11:18AM	15	yes.
	16	Q. Didn't you testify at your deposition that SIC is
	17	within the capture zone for S-1?
	18	A. I don't recall if I did. If I did, I guess I did.
	19	Q. All right. If we could go to page 119, lines 15
11:18AM	20	through
	21	MR. GEE: Objection. Improper impeachment.
	22	THE COURT: Sustained.
	23	You can have him you could refresh his memory.
	24	Q. (BY MR. BLUM:) All right. Do you have your
11:18AM	25	deposition in front of you, sir?

```
1
                        I -- it may be. I don't know. There's a lot of
                 Α.
         2
            binders up here. If somebody knows that it's in one of them,
         3
            if they could --
                        THE COURT: Is it a binder, Counsel?
         4
                        MR. BLUM: It is, Your Honor.
11:19AM
         5
         6
                        THE COURT: All right. Mr. Cruz, can you assist,
         7
            please?
                        THE COURTROOM DEPUTY: What number is it again?
         8
         9
                        THE WITNESS: Yeah, I don't know what number it is.
                        THE COURT: It won't be a number. It should have
11:19AM
        10
        11
             its own subject name of deposition.
        12
                        THE COURTROOM DEPUTY: I'm sorry, Your Honor. I
            didn't hear it.
        13
        14
                        THE COURT: It's the deposition.
                        THE COURTROOM DEPUTY: I don't know if he has the
11:19AM
        15
             deposition up here.
        16
        17
                        THE COURT: Have him use this, please.
        18
                        THE COURTROOM DEPUTY: Yes, Your Honor.
        19
                        THE WITNESS: I'm sorry.
11:19AM
        20
                        THE COURT: Give him the page and the lines, please,
            Mr. Blum.
        21
        22
                        MR. BLUM: Okay. 119, lines 15 through 18.
        23
                        THE COURT: Just read it to yourself and see if it
        24
            refreshes your recollection, and he'll ask you a question when
            you're done.
        25
11:20AM
```

	1	THE WITNESS: Yeah, I
	2	THE COURT: So if you've reviewed it, ask your
	3	question, please.
	4	Q. (BY MR. BLUM:) Does that refresh your recollection
11:20AM	5	that in your deposition you testified that SIC was in the
	6	capture zone for Saugus 1?
	7	A. Yeah, but I believe we were referring to a figure.
	8	And then I go on in my deposition to explain that this is in
	9	two dimensional view but, if viewed in three dimensions, it's a
11:20AM	10	different story.
	11	Q. All right. Now so your answer is yes, you did,
	12	and then you tried to explain it?
	13	A. In my deposition?
	14	MR. GEE: Objection. Argumentative.
11:20AM	15	Q. (BY MR. BLUM:) Is that correct?
	16	THE COURT: Ask another question, Mr. Blum.
	17	Q. (BY MR. BLUM:) All right. Now, the isn't it
	18	correct, sir, that the contamination above the Saugus wells
	19	emanating from SIC, at least hypothetically or conceptually,
11:21AM	20	could move down vertically and get to the well?
	21	A. Yeah. I believe that's shown as a figure in the
	22	in the report.
	23	Q. So you would agree that's a possibility; correct?
	24	A. That's how it's presented, I believe.
11:21AM	25	Q. Okay. And, sir, isn't it correct that in 2013, you

```
1
            did what's called a pumping study to determine whether or not
         2
             the pumping of S-1 was strong enough to influence wells above
         3
            it?
                        In 2013? I don't believe so. No.
         4
                  Α.
                        Can you look at Exhibit 1397?
11:21AM
         5
                  0.
         6
                        MR. BLUM:
                                  I'm sorry. Let me get the right number,
         7
            Your Honor. I think it's -- 1397.
         8
                        THE WITNESS: I see that, yes. The memo is dated
            2013. This work was done in 2010.
                        (BY MR. BLUM:) And this is a memo describing work
11:22AM
        10
                  Ο.
        11
            done by you; correct?
        12
                        That's correct. Yes. Me and my colleagues at
                  Α.
            CH2M Hill.
        13
        14
                        And you're -- when you wrote this -- this report,
11:22AM
        15
            you believed that it was true and correct and fairly
        16
             represented what you were seeking to investigate; right?
        17
                  Α.
                        Yeah.
        18
                        MR. BLUM: Your Honor, I'd ask to publish the
        19
            exhibit.
11:22AM
        20
                        MR. GEE: Objection. Hearsay.
        21
                        THE COURT: I'm going to overrule it on that ground.
        22
            But let me -- let me hear, what is the purpose of this?
        23
            Because there may be another reason to sustain the objection.
        24
                        MR. BLUM: To show that he concluded in this
        25
            report --
11:23AM
```

```
1
                        THE COURT: All right. Then I'm going to sustain
         2
             it.
         3
                        Go ahead and ask him some foundational questions.
                        (BY MR. BLUM:) Did you conclude in the report that
         4
                  0.
            when Saugus 1 was pumped, that there was a delayed response
11:23AM
         5
         6
             where the groundwater above it in certain alluvial wells drew
         7
             down?
                        Uh, I -- I'd have to -- to look at it.
         8
                  Α.
                        Well, I can help you. Look at page 8 under the
                  Q.
             section called "Quaternary Alluvium."
11:23AM
        10
        11
                        Okay. It said, "Water levels monitored in the" --
        12
             "in the alluvium at two locations declined by certain amounts
             across the evaluation period, but there was no indications of
        13
        14
             direct hydrologic response to pumping of Saugus 1 and 2."
                        Now, the wells -- one of them was AL-6; right?
11:24AM
        15
                  Ο.
        16
                        That's correct. Yes.
                  Α.
        17
                        AL-6, during the time that S-1 was pumping, the
        18
            water level decreased almost 5 feet; correct?
        19
                        That's correct. Yes.
                  Α.
11:24AM
        20
                  Q.
                        Doesn't that mean that at least indirectly, when
        21
             Saugus 1 is pumping, it is drawing and affecting water in AL-6?
        22
                        I don't believe necessarily. That's -- that's the
        23
             only conclusion.
        24
                        Well, isn't that one of the reasonable conclusions
        25
             that could be drawn from that?
11:24AM
```

	1	A. That's a potential conclusion. It's also that the
	2	monitoring period for this this study was was done from
	3	the spring until, I believe, the late summer. And seasonally,
	4	the water levels in the alluvium fluctuate quite a bit just due
11:25AM	5	to rainfall. So it could also be another explanation.
	6	Q. Well, did you compare the drawdown from at AL-6
	7	to what was being what was happening at other wells to see
	8	if it was greater or lesser?
	9	A. I don't recall if we did or not. Um
11:25AM	10	Q. Isn't that something a good scientist would do?
	11	A. I again, it depends on what the intent of
	12	understanding what the intent of the memo was. And I don't
	13	know that there was a focus on the alluvium necessarily.
	14	Q. Well, what was the intent of the memo or the
11:25AM	15	study? Let's make it easier.
	16	A. Well, I'd have to go back and see what we said at
	17	the beginning of the document.
	18	Um, basically the study was done as Saugus 1 and
	19	Saugus 2 were returned to service to monitor water levels
11:26AM	20	regionally to see how the water levels in various wells may
	21	change with response to to their pumping.
	22	Q. So you wanted to know what effect would the pumping
	23	of Saugus 1 have on other wells such as AL-6; correct?
	24	A. AL-6 would be one of the wells that we monitored.
11:26AM	25	Q. And you found that when you pumped Saugus 1, AL-6

1 drew down 5 feet; right? 2 During the period that we monitored it, the water 3 level went down 5 feet, yes. How long did you monitor it for? I don't need exact 4 Ο. time. 11:26AM 5 6 I -- I want to say it was close to a six-month 7 period, four-month, six-month. As a hydrogeologist, if there was a drawdown for 8 Q. 5 feet in six months, would there have been a greater drawdown 10 for 10 years? 11:27AM 11 Α. Well, again, the water levels in -- you know, in 12 this particular unit, as well as all of the units, vary with a number of different factors, pumping being one of them, 13 recharge from rainfall being another. So it's not as simple as 14 11:27AM 15 coming up with, you know, one explanation to why a water level 16 changes. 17 Sir, didn't you conclude in a subsequent report in 18 2015 that, as a result of the study that we just talked about, you couldn't conclude whether or not this contamination in the 19 11:27AM 20 Saugus wells were the result of horizontal or lateral 21 contamination moving from Whittaker or vertical contamination 22 moving from surface contamination? I don't know what report you're referring to. But 23 24 if -- again, if -- if it was put in a report that we prepared, 25 then that's what we did. 11:28AM

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Well, the other -- you said you had two reports in
         1
                  Q.
         2
             that binder. And the second one was done for the Army Corps;
         3
             correct?
                        Yes, in 2015, there was two major reports that were
         4
            prepared related to this -- this entity.
11:28AM
         5
                        Okay. And that is Exhibit 1398. If you can -- if
         6
         7
             you can take a look at it, please.
         8
                        And is that a report that you published?
         9
                        MR. GEE: Counsel, was that included in your
             designations? I'm not finding it in my binder.
11:28AM
        10
                        MR. BLUM: I believe it was.
        11
        12
                        THE COURT: The Court doesn't have it either.
        13
                        MR. BLUM: Well, then I won't publish it,
            Your Honor, but if I can just lay the foundation for it.
        14
11:28AM
        15
                        THE COURT: All right.
                        (BY MR. BLUM:) Is that a report that you wrote?
        16
                  0.
        17
                  Α.
                        I was an author of this report with some other
        18
             coworkers of mine, yes.
        19
                  Q.
                        Okay.
11:29AM
        20
                        THE COURT: Let me ask. Was this stipulated to or
        21
             is this challenged?
        22
                                  Stipulated to, Your Honor.
                        MR. GEE:
        23
                        MR. BLUM: Oh.
        24
                        THE COURT: All right. Then go ahead and proceed.
        25
                        MR. BLUM: All right. You can put it up, please.
11:29AM
```

1 Q. (BY MR. BLUM:) This is a report that you authored; 2 correct? 3 I was an author on this, yes. Α. 4 0. And now, the company isn't Jacobs. It's CH2M Hill; 5 correct? 11:29AM 6 Α. Which Jacobs acquired a few years back, yes. 7 But that's the company at the time that you were 0. 8 working for; right? 9 Α. Correct. And what was the purpose of this report? 11:29AM 10 Ο. 11 This was the final report that we prepared for the Α. 12 Army Corps of Engineers for the -- the study that we had been conducting that started in the -- 2000/2001 time frame. 13 published one initial report in 2005, which was fairly 14 11:30AM 15 extensive. And this was kind of a summary of all of the work that had been completed between 2000 -- that 2005 report and 16 this date here. 17 18 And, sir, was one of the purposes of the report to 0. discuss, for instance, what additional work needed to be done? 19 11:30AM 20 Α. I think, again, similar to the VOC investigation 21 report, there is some recommendations as to areas where 22 additional wells would assist in better delineating 23 contamination, yes. 2.4 Q. All right. And you actually had a section called 25 "Data Gaps"; correct? It's on page ES9, which is the executive 11:30AM

```
1
             summary, 9. It's .11, page .11.
         2
                        Yeah. So this is -- this is an executive summary of
         3
             the larger section that probably covered this topic in the --
         4
             in the report.
                        Okay. And under Data Gaps, you see west of the
11:31AM
         5
         6
             site?
         7
                  Α.
                        I do, yeah.
                        And the second sentence says, "The existing data."
         8
                  Q.
         9
                        MR. BLUM: Can you blow it up?
                                       Now, "The existing data suggests
11:31AM
        10
                  Ο.
                        (BY MR. BLUM:)
        11
             that the distribution of PCE and TCE detections in the base of
        12
             the quaternary" --
        13
                        Did I pronounce that right, by the way?
                        I think it's pronounced -- that's one way, yeah.
        14
                  Α.
11:31AM
        15
                        -- "alluvium in the HSU S-1 are not adequately
             characterized to determine if PCE and TCE in production wells
        16
        17
             are the result of vertical migration of shallow nearby impacts
        18
             or lateral migration from a different area." Did I read that
        19
             correctly?
11:32AM
        20
                  Α.
                        That's -- yeah. Yes.
        21
                  0.
                        Now, what's HSU S-1?
        22
                        It's the -- I'm not sure how much HSUs have been
        23
             discussed during this. I don't really want to go into the full
        24
             description. But HSU S-1 is a portion of the Saugus formation
        25
             that is beneath -- typically beneath the alluvium, at least in
11:32AM
```

1 the vicinity of the production wells. It's shallow Saugus formation. 2 3 Q. All right. And production wells are the wells that the water agency uses to draw water for its customers from; 4 correct? 11:32AM 5 6 Α. Yes. 7 All right. And vertical migration is the migration 0. we talked about that comes from the surface and moves down; 8 9 correct? 10 11:33AM Α. Yes. 11 And lateral migration is one that moves with the 12 groundwater; correct? 13 Α. Correct. So were you saying that in 2015, when you did this 14 report for the Army Corps of Engineers, that there wasn't 11:33AM 15 enough information to determine whether the contamination of 16 17 VOCs in the S-1 or S-2 came from the top or the surface or had 18 moved laterally in the groundwater? 19 I mean, the main point of the statement is that it's Α. 11:33AM 20 not adequately characterized being a data gap. 21 Ο. And the -- the data gap was a large number to create 22 an inability to determine the source of the contamination for 23 the production wells; isn't that correct? 2.4 Α. I mean, it's -- there's not necessarily any source 25 identification context here. It's basically saying that -- you 11:34AM

```
1
             know, is this -- you know, are things flowing vertically to
         2
             these wells or laterally.
         3
                        Okay. And vertical would mean SIC and lateral would
                  Q.
         4
            mean Whittaker; right?
                        I would have to -- I mean, based on this geography,
11:34AM
         5
             that's a fair statement maybe. But, I mean, there's vertical
         6
         7
            migration and lateral migration. And I believe that in the VOC
             investigation report, there's -- you know, there's, again, a
         8
             conceptual migration pathway from SIC that would include both
        10
             lateral and vertical migration.
11:35AM
        11
                  0.
                        Last couple of questions.
        12
                        Do you recall at some point an e-mail chain or
             thread regarding whether or not there should be -- whether or
        13
        14
            not the water agency should try to perform fingerprinting of
            VOCs?
11:35AM
        15
        16
                        Yeah. I recall that it came up in my deposition.
                  Α.
        17
                        Is that -- did you review those e-mails to prepare
        18
             for your testimony here today?
        19
                        I -- I believe I looked at it. I can't say that I
11:35AM
        20
             studied it.
        21
                  0.
                        And you -- you commented on whether or not the
        22
             agency should go ahead with fingerprinting; right?
        23
                        I believe I commented that I agreed with somebody
        2.4
             else's comments that it would be an inconclusive evaluation
        25
             and, therefore, not likely worthwhile.
11:35AM
```

```
Isn't -- didn't you also agree that -- that was with
         1
                  Q.
             Mr. Takaichi -- or I think it's Dr. Takaichi, isn't it?
         2
         3
                        I -- I'm not sure if he was a Ph.D. or not.
                  Α.
                        But it was Mr. Takaichi; correct?
         4
                  Ο.
11:36AM
         5
                  Α.
                        Lynn Takaichi, yes.
         6
                        Would you also agree that one of the things that you
         7
             concurred with for -- of Dr. Takaichi was that a reason not to
         8
             do it was that it might exonerate Whittaker?
                  Α.
                        I believe that's what I said in my deposition, yes.
                        Is that the truth?
11:36AM
        10
                  Ο.
        11
                        Again, I -- I agree with what he said. And the
        12
             main -- the main point of my agreement was that it would be
             inconclusive.
        13
        14
                                   That's all I have, Your Honor.
                        MR. BLUM:
11:36AM
        15
                        THE COURT: Mr. Gee.
                                     CROSS-EXAMINATION
        16
             BY MR. GEE:
        17
        18
                        Mr. Lechler, I'd like to just briefly go over some
             of your background, if that's okay.
        19
                        What -- can you briefly describe your education
11:37AM
        20
        21
             background?
        22
                        Sure. So I -- I have a bachelor's degree in geology
        23
             and a master's degree in hydrogeology, both acquired in the
             late '90s, early 2000s.
        2.4
        25
                        And do you have any professional licenses?
11:37AM
                  0.
```

	1	A. I'm registered in the state of California as a
	2	professional geologist and a certified hydrogeologist.
	3	Q. Okay. Counsel referenced three studies that you
	4	were involved in. How many studies did you do in the area of
11:38AM	5	the Whittaker site related to perchlorate contamination?
	6	A. Um, the the main the main study would would
	7	have been the Army Corps work that was related to a compilation
	8	of a number of I guess there was one large characterization
	9	study that, again, was kind of completed in 2005, started in
11:38AM	10	the early 2000s.
	11	And and then after that, between 2005 and 2015
	12	when the when the study was officially completed, there was
	13	a number of small projects related to contamination
	14	perchlorate contamination in the production wells and
11:38AM	15	regionally.
	16	Q. Okay. So you've been basically studying the the
	17	area for between 10, 15 years. Is that about right?
	18	A. Essentially my entire professional career, that was
	19	the first project that I started working on when I was hired by
11:39AM	20	CH2M Hill.
	21	Q. Okay. And counsel mentioned a pump test that was
	22	conducted around I think you said the test itself was
	23	conducted in 2010. Is that correct?
	24	A. The test that was referred to is when Saugus 1 and
11:39AM	25	Saugus 2 were returned to service after being out of service

```
1
             for ten or so years. And I believe that occurred in the spring
         2
             of 2010.
         3
                        Okay. And what exactly is a pump -- pump test?
                  Ο.
                        Well, in general, a pump test is -- is where you
         4
                  Α.
            would pump a -- a well and monitor the response of that pumping
11:39AM
         5
         6
             in -- both in the well that you're pumping as well as other
         7
            wells that are surrounding that. And one of the things that
         8
            you do is you look to see how the water levels in those wells
             respond to that pumping.
                        And from that -- from that information, you know,
11:40AM
        10
        11
             the amount of water level changed due to the pumping, the rate
        12
             that you're pumping, you can make some inferences and do some
        13
             calculations to figure out how quickly groundwater flows.
        14
                        It also tells you something about the
             interconnectedness between one -- from one well to the -- those
11:40AM
        15
            pumping wells and -- and, essentially, if they're hydraulically
        16
        17
             communicating with one another.
        18
                        Okay. And you mentioned that you conducted this
             test during the start-up of S-1 and S-2. Was that -- was the
        19
11:40AM
        20
            pump test to determine whether or not other wells were
        21
            hydraulically connected to Saugus 1 and Saugus 2?
        22
                        Uh, I mean, that was -- I mean, that would have been
        23
            one of the objectives. I think, you know, a number of -- I
        24
            don't recall the exact number. But, I mean, there was -- water
        25
            levels were monitored in -- in wells -- I want to say 30 to 50
11:41AM
```

1 different wells scattered anywhere from probably a half mile 2 away from the Saugus wells, all the way up to within tens of feet from the wells and then also wells that are screened or, 3 you know, have water coming into them from various depths so 4 you can kind of see how far away the pumping influences water 11:41AM 5 6 levels, as well as how -- vertically where there's a -- an 7 influence of that pumping. Okay. And is it important to know whether a 8 Q. monitoring well is hydrogeologically connected to Saugus 1 and 10 Saugus 2 in order to generate, for example, flow contour data? 11:42AM 11 I think one -- one of the main objectives 12 would have been to -- to further refine and characterize these 13 HSUs, or hydrostratigraphic units, to better understand the 14 groundwater flow paths within the -- within the larger area. 11:42AM 15 And what wells were connected to the Saugus wells during -- as determined through your pump test? 16 I mean, I think -- in general terms, the -- you 17 Α. 18 know, the wells -- I believe that the -- the memo that was 19 referenced earlier, there was a -- there was a categorization 11:43AM 20 of whether or not wells responded immediately to pumping. 21 you basically saw a very quick water level change when pumping started to occur or if -- whether or not there was not an 22 23 immediate response. 24 And typically the wells that showed an immediate 25 response to pumping were within the HSU's S-3C and deeper, so 11:43AM

```
1
            S-3C, 5A, and other higher numbered HSUs.
         2
                        And was there any monitoring wells that -- of
         3
            significance that was not connected to the Saugus 1 and 2 or
            HSU-3?
         4
11:43AM
         5
                        MR. BLUM:
                                  Vaque.
         6
                        THE COURT: Sustained.
         7
                        (BY MR. GEE:) I'd like to display TE 34.65. And --
                 Ο.
                        MR. GEE: Your Honor, for the record, we're dealing
         8
         9
            with two different sets of Exhibit 34. And the page numbers
        10
            that I'm referencing are two pages off from the one that
11:44AM
        11
            counsel for Whittaker is using.
        12
                        THE COURT: Why don't we use the one that's actually
        13
            been admitted or will be admitted into evidence, please.
        14
                        MR. GEE: Okay. I'm going to presume that that
11:44AM
        15
            would be mine.
        16
                        THE COURT: Okay. So let's go ahead and use that.
        17
                        (BY MR. GEE:) Okay. Mr. Lechler, was CW-1 one of
                 Q.
        18
            the wells that -- that you evaluated during the pump test?
                        Um, so CW-1 has -- at that location, there's three
        19
11:45AM
        20
            different wells at separate depths. And during this pumping,
        21
            we monitored the deepest of those three wells, CW-1C.
        22
                        MR. GEE: Okay. And can you blow up the left-hand
        23
            graphic?
        24
                 Q.
                       (BY MR. GEE:) And, Mr. Lechler, can you use your
11:45AM
        25
            finger and point out where CW-1 is?
```

```
1
                  Α.
                        (Indicating.)
         2
                        Why was this well significant?
                  Q.
                        Um, well, this well -- I mean, it's -- we did not
         3
                  Α.
             observe any -- any immediate responses to pumping in this -- in
         4
             this well, um, which suggests that it's in shallower HSUs, S-1
11:45AM
         5
         6
             or S-3A potentially. It is in the Saugus formation.
         7
                        And that's really the only offsite monitoring
             location in that area. So there's -- there's really no
         8
            monitoring of -- of the portion of the aquifers that are
             supplying the wells at that location.
11:46AM
        10
        11
                        MR. GEE: Okay. Can you display the right hand --
        12
            display the right-hand graphic on that page?
                        (BY MR. GEE:) Mr. Lechler, can you explain how the
        13
                 Q.
            VOC plume can bypass CW-1?
        14
11:46AM
        15
                        Well, I think it's essentially shown here
             graphically. I mean, we have a red area that is represent --
        16
        17
            you know, an interpreted interval of VOC contamination that is
        18
            detected on the Whittaker site at these three locations,
        19
             33 MW-1A through C, PC-4A through C, and RN-W4A through C all
11:47AM
        20
            have one -- it looks like one may not have VOCs in it.
        21
                        But -- so those -- those wells have VOCs in them.
            And between them is CW-1. And then further to the west you
        22
        23
            have the Saugus production wells. And again, there's -- at
        24
            CW-1, there's -- there's really just not any wells that are
        25
            deep enough to be within that interval that -- that is where
11:47AM
```

1

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the contamination is -- is likely to be.
                        We did see at the Whittaker site on the -- on the --
         2
         3
            on the east side of this diagram one of those wells, I believe
             it was 33 MW-1 was monitored during -- during that pumping.
         4
            And we did see a response in that well.
11:48AM
         5
         6
                        So -- so there is a response farther away than CW-1.
         7
            And we didn't see anything at CW-1 which would indicate that
             it's in the shallower portion of the aguifer.
         8
                        MR. GEE: Okay. And let's go back to the left-hand
11:48AM
        10
             figure.
        11
                        (BY MR. GEE:) And does this mean that VOC
        12
            contamination from the Whittaker site can flow to the north of
             this site without being detected in CW-1?
        13
                        I -- yeah, that's what I just tried to explain, I
        14
                  Α.
11:48AM
        15
             think. But yeah.
        16
                        Okay. And looking at this drawing, is there any
                  0.
        17
             other information other than contour lines that you can use to
        18
            determine groundwater flow north of OU-4? Directly north of
        19
            OU-4. Sorry.
11:49AM
        20
                  Α.
                        Um, I'm sorry. Could you repeat your question?
        21
                        Okay. Does this mean that other than contour lines,
                  0.
        22
             that no information -- that there is no information regarding
        23
            groundwater flow directly north of OU-4? Is that correct?
        24
                  Α.
                        I mean, there's no -- there's no groundwater quality
        25
            or contaminant information within the -- again, the portion of
11:49AM
```

1 the aguifer that the wells are pumping from in that area, no. 2 And does this mean that no contamination can get into CW-01? 3 Not necessarily, no. I mean, I -- my recollection 4 is that CW-1 does contain perchlorate, at least -- I'm not sure 11:49AM 5 6 about -- again, there's three wells there. I believe the 7 shallowest one has been dry for some time now. 8 And the two deeper ones, um, my recollection is that 9 there is some perchlorate that's been detected there 10 historically. But, um, you know, there's a number of different 11:50AM 11 locations within the -- you know, in the area where there had 12 been releases. So just because there's perchlorate in the well doesn't necessarily mean that VOCs would be there if there was 13 a release of just perchlorate. 14 11:50AM 15 Okay. And this morning we jumped around guite a bit, you know, went through your Saugus 1 and Saugus 2 -- or 16 17 your VOC investigation report. Just in a sentence or two, what 18 was the purpose of the 2015 VOC investigation study? 19 Basically, Saugus 1 and Saugus 2 had been detecting low levels of VOCs. And there's not treatment for VOCs at the 11:51AM 20 21 treatment plant. And the agency was looking for someone to 22 investigate the source of VOCs in those wells. 23 Okay. And what was the first step of your 24 investigation? 25 11:51AM Α. Uh, the first step would have been identifying

1 facilities in the area surrounding the wells, online using 2 publicly available databases from the State and going through those -- that listing of facilities, using a process to, I 3 quess, categorize and screen out facilities that did not have 4 contamination in them that's relevant to this study, the type 11:51AM 5 of contamination that is, VOCs, and then using other 6 7 professional judgment, whittle down that list to, you know, the -- the set of potential sources that additional evaluation 8 was performed on. Okay. And after you conducted the initial 11:52AM 10 11 screening, what -- what did you do after that? 12 So the -- you know, the screening process Α. essentially arrived at two potential sources, one being 13 14 Whittaker and one being SIC. 11:52AM 15 And at that point, after that, we did a couple of things, looked at the VOCs that are detected in Saugus 1 and 16 17 Saugus 2 and compared those to the VOCs -- because it's not 18 just one VOC that are detected in either of those production 19 wells. I think there's a list of 15 or 20 different ones that 11:52AM 20 had been detected over time. 21 So compared that list to the VOCs that have been 22 detected in the monitoring wells related to each of those sites 23 to see, you know, if -- if a similar set or subset of VOCs have 24 been detected. And then kind of the flip side of that was to 25 look and see what were the main contaminants detected on each 11:53AM

```
of these sites and if those contaminants are -- are detected in
         1
         2
             the production wells.
         3
                        Okay. And did you also conduct a hydrogeological
                  Ο.
             evaluation?
         4
                        Yeah. I mean, that's -- the other component to that
11:53AM
         5
         6
            would be looking at, you know, hydrogeologically where the
         7
            wells from those two sites -- where they're getting their water
             from and if -- if those wells are, again, coming back to the --
         8
            you know, whether or not they're responding to pumping or if
             they're in hydraulic connection or within a certain portion of
11:54AM
        10
        11
             the aguifer that the production wells are producing from.
        12
                        Okay. And did you -- did you use available
                  Q.
        13
            hydrogeological data in order to conduct your evaluation?
        14
                        Yeah. So we used data both that had been prepared
11:54AM
        15
             and presented by Saugus Industrial Center and their
        16
             consultants. We used data and reports prepared by Whittaker
             and their consultants. We used the work that was prepared on
        17
        18
            behalf of the Army Corps. And we used the data that was
             available publicly to look at all of those things.
        19
11:54AM
        20
                  Q.
                        Okay. And I'd like to focus a little bit on the
        21
            Whittaker site.
        22
                        MR. GEE: Can we publish 34.64?
        23
                  Q.
                        (BY MR. GEE:) Mr. Lechler, do you recognize this
        24
             figure?
        25
                  Α.
                        Yeah. I believe that's -- this is a figure from the
11:55AM
```

Saugus VOC investigation report.

- And can you briefly discuss what this figure shows?
- So the figure shows wells that are -- excuse me -in the Saugus formation along with the distribution of where perchlorate has been detected in the Saugus formation. that would be the -- kind of the orange-ish yellow shaded area.

There's also groundwater flow arrows showing the general groundwater flow direction in the Saugus formation throughout this area. And then there's -- there's a blue line that -- that shows -- well, let me back up.

So the -- the monitoring wells on here are shaded based on the concentration of TCE in them, with the red -- the red dots being higher concentrations of TCE, the -- the green being lower, and the yellow and orange being somewhere in The dots with the -- or the circles without any fill in them were non-detect -- or there was no TCE detected there. And then the blue line kind of contours the interval where those detections are shown.

- And I'm sorry, the yellow blob, again, represents --Q.
- Α. The -- yeah, the orange-yellow shaded area represents the area where perchlorate has been detected. Um. and I'm looking at the -- I don't -- I'd have to look at the report to see what the time frame was on that. But if that was a maximum -- or, you know, extent or if that was a -- based on a certain time frame. But that's where perchlorate has

11:55AM

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10 11:55AM

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11:56AM 15

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18 19

11:56AM 20

22

21

23

24

25 11:57AM

1 regionally been detected in those wells. 2 And can I just -- can I display page 61 of this 3 report. Mr. Lechler, what does this drawing represent? 4 So this is another figure in that VOC investigation 11:57AM 5 6 report. And what it shows is the Whittaker-Bermite site with 7 different shaded areas representing -- looks like the areas 8 that are shaded blue are VOC impacted areas. And these -these areas were, I guess, delineated by -- by Whittaker 10 consultants during investigations that have been done on the 11:58AM 11 site. These are not areas that we identified. So this is --12 this is some additional data from another source that we put onto this figure. 13 14 But -- so the blue shaded areas is where there are 11:58AM 15 VOC impacts. And I believe that's in soil. And then, um, the -- the red shading is where there's perchlorate impacted 16 17 areas. Then they further subdivide it into -- with these 18 dashed yellow lines kind of categorized into three areas -- the 19 northern alluvium, the northern Saugus, and then the 11:58AM 20 southern -- southern Saugus area, kind of -- where they're kind 21 of all clumped together. 22 And I think the intent of the figure in the report 23 was to show that there's many -- there's many sites where both 24 of these types of chemicals were released and that some of them 25 are, you know, at the same locations where -- both of them, and 11:59AM

```
1
            then there's also some locations where one or the other was --
         2
            was found to be impacting.
         3
                        Okay. And did the -- did the -- did you use this
                  Q.
         4
             figure to help you determine the plume that was -- that was
            displayed --
11:59AM
         5
         6
                        MR. GEE: And can you display Figure 64 again,
         7
            page 64.
         8
                  Q.
                        (BY MR. GEE:) Did you use this information to help
            generate this plume map?
        10
                        I mean, I -- I think the interpretation of this map
11:59AM
        11
             as it's -- as it's outlined in the report interprets that
        12
             there's potentially -- you know, that the result -- the
        13
             resultant perchlorate impacted area that we're looking at and
        14
             the resultant TCE contour that is shown here is not from a
12:00PM
        15
             single release area and it's potentially and likely that --
             that this is a composite plume that involves migration of each
        16
        17
            of those contaminants from various areas on the site with
        18
             the -- and I can kind of draw here.
        19
                        You know, there's potentially a source area here
12:00PM
        20
             (indicating) that could be attributable to a portion of the
        21
            plume and then another source area where you have a -- a plume
             coming out this way (indicating). And like -- so this could be
        22
        23
            over -- and this is still simplifying the -- the overall
        24
            picture. But what we could have here is overlapping plumes
        25
            that were the result of releases from numerous areas on the
12:01PM
```

```
1
            site.
         2
                  Q.
                        Thank you.
         3
                        MR. GEE: Can you clear that?
                        (BY MR. GEE:) You described -- there's a lot going
         4
                  Ο.
             on in this drawing. And you earlier described this blue dash
12:01PM
         5
         6
             line. Can you tell us again what that blue dash line
         7
             represents?
                        Uh, so, I mean, you see again the -- the circles
         8
                  Α.
             that have the shading inside of them. So the ones that are
             shaded kind of a grayish color, there's no data for the time
12:01PM
        10
        11
             frame that we prepared this map. So I guess you can
        12
            essentially ignore those. It's just for reference that there
             is a well there.
        13
        14
                        But really what it does is it kind of encircles the
            area where there's detections of TCE.
12:01PM
        15
        16
                        Okay. And within the larger bluer area, there's a
                  Q.
        17
             couple of question marks. What does that represent?
        18
                        Uh, an area of uncertainty. Um, again, this kind of
             relates to an area where we have a data gap that there's --
        19
12:02PM
        20
             there's concentrations, um, surrounding that area and -- and no
        21
             data to -- to kind of fill that gap.
        22
                        Okay. And are those the data gaps that you've
        23
             referenced in your conclusion?
        24
                  Α.
                        Yeah. There was a -- one of the recommendations was
        25
12:02PM
            additional wells in that area to go deeper, to look within the
```

1 deeper portion of the Saugus formation where the wells are 2 producing their water. Okay. And you mentioned that you've reviewed data 3 Q. 4 recently. Is it your understanding -- or in the data that you reviewed, did you see any new data associated with wells that 12:02PM 5 6 are represented by those question marks, if there were wells 7 installed? Again, to my knowledge, none of the recommendations 8 that are in the VOC -- excuse me, the VOC investigation report 10 have been, um -- none of that work has been done. So, yeah, 12:03PM 11 there's -- to my knowledge, no additional wells, excuse me, 12 where those question marks are. 13 Q. Okay. Can you clear that? And over to the right here, you have an additional 14 12:03PM 15 dotted line. And again, there appears to be some question marks around it. Can you tell us what that dot -- that -- this 16 next dotted blue line is? 17 18 Again, similarly, it -- it encircles an area where Α. we have TCE detected and, you know, it's been detected in all 19 12:03PM 20 of the production wells that are within there, Saugus 1 -- or 21 Saugus 2, Saugus 1, V-201, V-205, V-157 which has been 22 destroyed, I believe had TCE in it. There's monitoring wells 23 out here with TCE. There's another one here (indicating). 24 And then we have this area where there's -- there's 25 no TCE detections, but then we have -- again, some uncertainty 12:04PM

1 up here (indicating) and we have some uncertainty down here (indicating) because there's no wells as to whether or not some 2 3 of these concentrations here could be following these flow -these flow arrows into those -- into those areas. 4 Okay. And you have a flow area -- or a flow line 12:04PM 5 Ο. within -- within the plume, this one. What's the import of 6 7 that -- that flow arrow? What's the importance? I mean, just generally shows 8 Α. where the -- in the absence of pumping to capture the water, it generally shows the direction that that water's going to -- to 12:05PM 10 flow. So further -- further into uncontaminated areas, 11 12 basically. 13 0. Okay. And you have question marks around this -around this blue plume. So is this blue plume actually drawn 14 12:05PM 15 based on -- on data? And which data did you use? 16 Well, yeah. It's drawn based on the data that's Α. 17 presented on the map. So the colored circles. And then it's 18 interpreted based on groundwater flow directions and -- you 19 know, and the areas where there's lacking data was where you 12:06PM 20 see the -- the question marks. 21 MR. GEE: Okay. And let's see. Can you display 22 page 55? Let's take a look at the left-hand side. 23 (BY MR. GEE:) This is page 55 from your report. 24 What -- what are we looking at on page 55 here, Mr. Lechler? 25 Α. It looks like the -- the portion of this page that's 12:07PM

1 blown up right now is the concentration of chloroform in 2 monitoring wells that are screened within the alluvium. And 3 this looks like the maximum. So this is the maximum concentration that's been detected in these wells. 4 Okay. So does it show that there's multiple --12:07PM 5 Ο. 6 multiple potential sources of chloroform that -- chloroform 7 sources in the area? I mean, it shows chloroform scattered in the -- I 8 Α. mean, the only -- the only portion of the Whittaker site that's 10 in the alluvium is in that northern portion there. And it 12:08PM 11 shows some chloroform detections up there. It shows chloroform 12 detections throughout the -- the alluvium as groundwater flows 13 in the alluvium to the west. It shows, you know, a couple of 14 detections up there. And then it shows a smattering of 12:08PM 15 detections throughout the Saugus Industrial Center and surrounding alluvial monitoring wells there. 16 17 Okay. And if you -- was chloroform detected in Q. 18 Saugus 1 and Saugus 2? 19 I believe it was, yes. I don't recall if it was 12:08PM 20 both wells -- I know there were some chemicals that were 21 detected more prevalently in Saugus 1 versus Saugus 2. But it 22 was detected in at least one of them. 23 Okay. And what -- did you know about what 24 concentrations were detected in the Saugus wells? 25 Α. Off of the top of my head, I don't know. 12:09PM

```
1
                        Okay. Do you have an order of magnitude? Is it --
                  Q.
         2
                        Um, again, it's not shown on the map here. I
         3
            believe they were all relatively low. I -- I -- my
            recollection is that the only compounds that were detected in
         4
             those two wells consistently above reporting limits were TCE
12:09PM
         5
         6
                       So they would have been near or below laboratory
         7
             reporting limits which would mean that they were -- most likely
            had a -- had a "J" flag, which means it's an estimated
         8
             concentration.
                        Okay. And with all those chloroform in the wells,
12:09PM
        10
        11
             is that -- does that allow you to determine the source of
        12
            chloroform?
        13
                        Um, I mean, we didn't really try to determine the
             source of chloroform. But yeah, with low concentrations, both
        14
12:10PM
        15
             in the wells as well as in these various areas, it would maybe
            be difficult to determine a source.
        16
        17
                        I mean, chloroform is, I think, used in its native
        18
             form.
                   But it is also a byproduct of the breakdown of other
            VOCs. And so it could be -- it could be coming from a number,
        19
12:10PM
        20
             I guess, of different potential processes.
        21
                  Ο.
                        Okay. And you mentioned that you also did a
        22
             chemical comparison of contaminants in the Saugus well versus
        23
             the other sites.
        24
                        MR. GEE: Can you publish page 27 and highlight the
        25
            table there?
12:11PM
```

	1	Q. (BY MR. GEE:) Mr. Lechler, what did you do for
	2	the in the chemical comparison portion of your report?
	3	A. So it looks like here, this is a comparison of so
	4	on the left is the listing of VOCs that had been detected,
12:11PM	5	either in Saugus 1 or Saugus 2. The next two columns show how
	6	frequently based on the data that we used at the time the
	7	report was prepared, how frequently they were detected. And
	8	then the third column shows whether or not just with a
	9	checkmark, whether or not that same VOC had been detected on
12:12PM	10	the Whittaker-Bermite property. And there's a corresponding
	11	table similar to this one for SIC.
	12	Q. Okay. And what does this the information in this
	13	table tell you, other than the what's represented here?
	14	What what's the importance of this table?
12:12PM	15	A. Well, I think we use this table for a couple of
	16	different things. One thing we we used it to help kind of
	17	narrow our focus on which VOCs to focus on. There were some
	18	that were either not detected in Saugus 1 or Saugus 2 or
	19	detected you know, for instance, there's a number that were
12:12PM	20	detected 1 percent of the time in I don't know how many total
	21	samples. But that was probably, for instance, 1 out of 100
	22	samples where it was detected and so not really going to be
	23	something that we wanted to invest an extraordinary amount of
	24	time into looking at if it was only detected once.
12:12PM	25	So it helped narrow the focus of the VOCs to focus

```
1
                 And it also told us something about whether or not, you
         2
             know, those -- what we've kind of refined more important list
            of VOCs, whether or not they're detected on the various sites.
         3
         4
                        THE COURT: Mr. Gee, approximately how much longer
            do you have with this witness?
12:13PM
         5
         6
                        MR. GEE: Maybe about 15 minutes.
         7
                        THE COURT: All right.
                        MR. GEE: Can you display page 22? And highlight.
         8
         9
                        (BY MR. GEE:) Mr. Lechler, is this the -- the table
                  0.
             that -- that you referenced for SIC?
12:13PM
        10
        11
                        It is, yes. So I think everything in -- everything
        12
             in this table should be the same as the one we previously
        13
             looked at, except for the checkmarks in the -- in the last
        14
            column of the table.
12:13PM
        15
                        Okay. And based on your comparison of chemicals
             found in the wells versus chemicals identified at the site, did
        16
        17
            you -- did this help you reach any kind of conclusions
        18
             regarding the more likely -- the likely sources of VOCs and --
             in the Saugus 1, Saugus 2?
        19
12:14PM
        20
                  Α.
                        I mean, I think it was -- it was considered as a --
        21
            as one of the lines of evidence that -- you know, there was
        22
            more of these VOCs that were detected in the wells, than had
        23
            been detected on the Whittaker site, than on the Saugus
        2.4
             Industrial Center site.
12:14PM
        25
                  Ο.
                        Okay. And the Saugus Industrial Center, were there
```

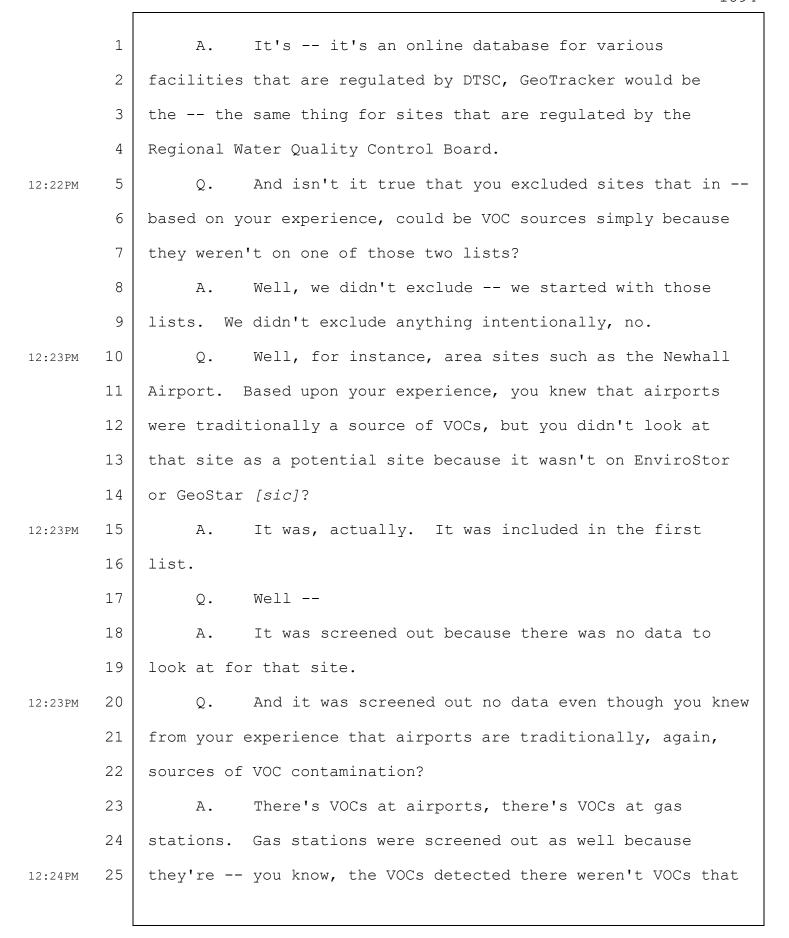
```
1
             chemicals detected at Saugus Industrial Center that did not --
         2
             or that were not detected in Saugus 1 and Saugus 2?
                        Yes. So I believe in the report for each of the
         3
                  Α.
             sites early on -- and there's a section dedicated to each
         4
             side -- early on in that discussion, there's a -- a summary of
12:14PM
         5
         6
             the prevalent chemicals -- or maybe it's in the background
         7
             section. I don't -- I can find it, but -- it discusses the
         8
             chemicals that are prevalent at each of these sites, most
             frequently detected at high concentrations.
                        And Saugus Industrial Center -- I believe the three
12:15PM
        10
        11
             that were identified were TCE, vinyl chloride, and 1,2-DCA.
        12
            And I don't believe that vinyl chloride or 1,2-DCA at the time
        13
             the report was prepared had been detected in Saugus 1 or
        14
             Saugus 2.
12:15PM
        15
                        And were vinyl chloride and 1,2-DCA found in high
             concentrations in the Saugus Industrial Center monitoring
        16
            wells?
        17
        18
                        Again, I don't have numbers for you, but I believe
             that, yes, that was the -- kind of the summary in the report
        19
12:15PM
        20
            was that those were two of the -- those were two of the three
        21
             chemicals that were detected at the highest concentrations on
        22
             the facility.
        23
                  Q.
                        Okay.
        24
                        MR. GEE: Your Honor, I guess my 15 minutes was an
        25
            overestimate.
12:16PM
```

```
That's often welcome.
         1
                        THE COURT:
                                                            That's it for
         2
             your questions?
         3
                                  Yes. Yes, Your Honor.
                        MR. GEE:
         4
                        THE COURT: All right. Any redirect, Mr. Blum?
12:16PM
         5
                        MR. BLUM:
                                   Yes, sir.
         6
                                   REDIRECT EXAMINATION
         7
            BY MR. BLUM:
                        Mr. Lechler, the investigation you did that resulted
         8
                  Q.
             in your report, do you recall describing it as a desktop or
             tabletop investigation?
12:16PM
        10
        11
                  Α.
                        I believe that I may have said that, yeah.
        12
                        What is a desktop investigation?
        13
                  Α.
                        It would be one that does not necessarily involve
             going into the field and collecting new -- new data.
        14
12:17PM
        15
            using existing data to -- you know, again, essentially sitting
             at your desk to -- to do the study as opposed to going out -- I
        16
        17
            mean, a tremendous amount of work is involved to install all
        18
             those wells that we've been talking about. So there was none
             of that included in this -- in the report, her study.
        19
12:17PM
        20
                  Ο.
                        Doesn't it also mean that when you're dealing with
        21
             the -- the hydrology -- hydraulic conductivity, that you try to
        22
            use averages instead of trying to plot out actual numbers in
        23
             order to make it simpler?
        2.4
                  Α.
                        I guess I don't understand the question.
        25
12:17PM
                  0.
                        Let's see if I can be more specific.
```

1 For instance, isn't one of the things that you 2 looked at, the hydrostratigraphic division of the different --3 of the Saugus formation? Is that correct? 4 Α. That was -- that was a component, yeah. looked at the various HSUs. 12:18PM 5 6 And isn't it true, in looking at these components, 7 you used what is called a simpler hydrostratigraphic division of the Saugus formation? 8 Α. Yeah. I -- I believe in this report we simplified 12:18PM 10 the various Saugus HSUs that had been numbered 1 through 8 11 and -- and put them into two separate categories, A and B; 12 whereas A was -- the Saugus unit where we did not see 13 responses -- immediate responses to pumping, and Saugus B being 14 the intervals where we -- we do see these immediate responses 12:19PM 15 to pumping. 16 Now, just because a response is immediate -- is not 0. 17 immediate doesn't mean there's no response; correct? 18 Α. Correct. So the division you made was -- and one of the 19 12:19PM 20 reasons you made it was because you didn't have the budget for 21 a more complicated division? 22 Α. That's not the reason, no. 23 Well, how about -- one of the issues you looked at 24 was the conductivity; correct? 25 Α. I believe there's some use of hydraulic conductivity 12:19PM

```
1
            values in the report to demonstrate travel times.
         2
                        All right. And each different strata actually has a
         3
             different conductivity -- correct? -- or can have one?
         4
                  Α.
                        I guess theoretically it could, yes.
                        All right. And you didn't use the conductivity for
12:19PM
         5
         6
             each strata, you just created an average for conductivity;
             correct?
         7
                        Uh, I believe so. Yeah.
         8
                  Α.
                        All right. And isn't it correct that because you
                  Q.
12:20PM
        10
             just use an average that didn't take into account the strata,
        11
             it's one of the reasons why your conclusions were hypothetical?
        12
                        No. I don't think so.
                  Α.
        13
                  Q.
                        Well, what's the fastest strata?
                        I -- I believe the alluvium.
        14
                  Α.
                        Well, how about within the Saugus formation? Isn't
12:20PM
        15
                  Q.
        16
             it S-1?
                        I don't think so. I don't -- I don't know off the
        17
                  Α.
        18
             top of my head, but I -- if I had to guess, it would probably
            be something in S-3. I -- honestly, I don't -- I don't know.
        19
12:20PM
        20
                  Q.
                        While using an average, don't you minimize the
        21
             travel time for faster stratas and maximize the travel time for
        22
             slower stratas?
        23
                  Α.
                        That's what an average would do, yes.
        24
                  Q.
                        And isn't it correct that it was your belief that in
        25
12:20PM
             your next investigation, one of the steps would be to use
```

1 actual data to determine the strata conductivity rather than an 2 average? 3 There was never any next investigation planned as Α. 4 part of this. 12:21PM 5 Was there next steps planned? There was recommendations to do additional 6 7 characterization of groundwater quality, but there was never any -- nothing as far as hydraulic conductivity values that I 8 can recall. All right. Now, Mr. Lechler, the -- you discussed 12:21PM 10 11 with Mr. Gee about how you went about determining which were 12 the potential sources and how you got it down to two. Do you recall that? 13 14 Α. Yes. Now, isn't it correct that the first cut of what 12:21PM 15 16 could be sources, you limited those sources that were already 17 determined to be VOC sources by either the Regional Quality 18 Control Board or DTSC and which were reported on either GeoTracker or EnviroStor? 19 12:22PM 20 Α. I don't believe it was just VOC sources. I believe what we did was we looked at all release sites within a certain 21 22 geographic area that were open cases -- or actually, closed 23 cases too, I believe -- cases with the Regional Board or DTSC, 24 yes. 25 And what's EnviroStor? 12:22PM Ο.



```
1
            were detected in the Saugus wells. So, yeah, I mean, we didn't
         2
             include it because there was no data to -- to include.
                        And you also excluded dry cleaners, which you
         3
                  Q.
             testified to were notorious contaminators of PCE; isn't that
         4
             true?
12:24PM
         5
                        We excluded -- there was two dry cleaners that
         6
                  Α.
         7
            were -- that were in the initial listing of sites. And they
            were -- they were -- they were excluded from the final list of
         8
            potential sites for various reasons that are outlined in the
             report, yeah.
12:24PM
        10
        11
                  Ο.
                        You would agree that dry cleaners are notorious
        12
             sources of PCE?
        13
                  Α.
                        I would agree that PCE is very commonly found at
             dry-cleaning facilities, yes.
        14
12:24PM
        15
                        All right. And because you couldn't go out and
             collect field data, you excluded them because you didn't have
        16
        17
             data at that point?
        18
                        That's not true.
                  Α.
                        Well, you couldn't get --
        19
                  Q.
12:25PM
        20
                  Α.
                        There was data for those two facilities on
        21
            EnviroStor and GeoTracker based on that data and based on other
        22
             considerations, such as distance from the Saugus wells.
        23
            were excluded, and it's outlined in the report.
        24
                  Q.
                        But one of the dry cleaners you excluded was
             Flamingo Dry Cleaners; right?
12:25PM
        25
```

```
1
                  Α.
                        That's correct, yes.
         2
                        Were you told by anybody at the water agency that
         3
             they believed that the Flamingo Dry Cleaners was a source of
             contamination for their distribution system?
         4
                  Α.
                        No.
12:25PM
         6
                  Ο.
                        All right. Now, we looked at two tables, I think it
         7
            was Table 4-1 and 5-1. That's contamination that was found at
             Saugus 1 and Saugus 2 and also that was found at SIC and
         8
            Whittaker; correct?
        10
12:25PM
                  Α.
                        Yes.
                        Did you ever take a look at all of the contamination
        11
        12
             that was found at either SIC or Whittaker and compare that to
        13
             all the contamination that was found at the Saugus -- either
        14
             Saugus 1 or Saugus 2 and see whether or not Whittaker and SIC
12:26PM
        15
             explained all the contamination that they found at Saugus 1 or
        16
             Saugus 2?
        17
                        Again, I -- I think I explained there was a couple
                  Α.
        18
             of VOCs or -- actually, it's almost close to half of the ones
        19
             that were detected in Saugus 1 and Saugus 2 that were detected
12:26PM
        20
             at such a low frequency that they were not -- they were not --
        21
             they were not looked at in detail.
        22
                        Isn't it true that you did do that comparison and
        23
             you found several VOCs that could not be explained by either
             contamination found at SIC or Whittaker?
        2.4
        25
                        No. I -- I mean, I -- there's -- there's a -- there
12:26PM
                  Α.
```

1 are VOCs on that list that probably were not detected at either 2 of the sites. But again, they were not the VOCs that are detected every time that the well is sampled. And, you know, 3 4 going in to try and, I guess, develop an explanation for every detection of something in that well wasn't the intent. We were 12:27PM 5 6 looking at the -- at the concentrations and the -- and the 7 sources of the VOCs that were consistently detected and causing 8 issues at their treatment plant. All right. Now, does that mean that there were VOCs Q. found in the wells that couldn't be explained by Whittaker or 12:27PM 10 11 SIC? 12 There's VOCs that were detected at -- at least one Α. 13 sample that may not have been detected at either SIC or -- or 14 Whittaker. But if it was something that was a chronic issue, 12:27PM 15 it would have been detected every time the well was sampled. 16 So as to how to explain why that very low level of 17 VOCs of some -- some specific VOC was detected, I don't have an 18 explanation for you. But isn't one of the possible explanations that the 19 12:28PM 20 VOCs that weren't from SIC or from Whittaker were from a third 21 source that you didn't know about? 22 Α. There's a world of possibilities out there. 23 Q. And that's one of them, isn't it? 24 Α. Sure. 25 And by the way, you didn't exclude that as a 12:28PM Q.

```
1
            possibility, did you?
         2
                        Again, those -- those -- those VOCs that were not
         3
            detected at a -- at a high frequency were not -- there was no
             focus on those in the report. We very quickly got down to TCE
         4
            being the primary concern because TCE was -- was -- was the VOC
12:28PM
         5
         6
             that was detected most frequently and consistently in both of
         7
             the wells and at highest concentrations.
                        Does that mean you did nothing to exclude the
         8
                  Q.
            possibility that there was a third source?
                        THE COURT: We've gone around this. Ask another
12:29PM
        10
        11
            question, please.
        12
                        (BY MR. BLUM:) Sir, you talked about Figure 5-4 and
                  Q.
        13
             the CW well. Do you recall that?
                        I don't remember which figure that is, but -- which
        14
12:29PM
        15
             figure are we talking about?
        16
                 Ο.
                        5 - 4.
        17
                        THE COURT: How much more time do you have,
        18
            Mr. Blum?
        19
                        MR. BLUM: If you give me five minutes, Your Honor,
12:29PM
        20
            I can finish it up. Maybe six.
        21
                        THE COURT: All right. I'm going to hold you to
        22
             five minutes.
        23
                  Q.
                        (BY MR. BLUM:) Can you look at 5-4?
        24
                  Α.
                        Yes.
12:29PM
        25
                        Figure 5-4 is based on your hypothetical pathways;
                  0.
```

```
1
             right?
         2
                        Uh, not necessarily. I don't -- I guess --
         3
                        MR. BLUM: All right. Could we go to Figure 5-5,
             which is the -- which is the plume map? 34.62, but I want
         4
             to -- it's Figure 5-4.
12:30PM
         5
         6
                        (BY MR. BLUM:) All right. Now, I just want to
         7
             focus here.
         8
                  Α.
                        Okay.
                        Those border wells right there.
                  Q.
12:30PM
        10
                  Α.
                        Yeah.
        11
                        And -- you know what? Let me get a better -- I want
                  Ο.
        12
             to focus on that line, that blue line there and these border
             wells.
        13
        14
                  Α.
                        Okay.
12:30PM
        15
                        You drew this map; correct?
                  Q.
        16
                  Α.
                        Yeah.
                        And for the onsite VOC plume, you stopped it short
        17
        18
             of those three border wells; correct?
        19
                        For the -- for the VOCs in the OU-4 right there,
                  Α.
12:30PM
        20
             yes.
        21
                        That was because, in your interpretation looking at
                  Q.
        22
             the data, you believed there was no VOCs detected in those
        23
             border wells; correct?
        24
                        Well, that's what the figure shows. There's no VOCs
             detected in them, right.
        25
12:31PM
```

```
1
                  Q.
                        And that -- and you were true to the data when you
         2
             drew this figure?
         3
                  Α.
                        Correct.
                        MR. BLUM: I have nothing further, Your Honor.
         4
                        THE COURT: Anything further of this witness,
12:31PM
         5
         6
            Mr. Gee?
         7
                        MR. GEE:
                                 No. No, Your Honor.
                        THE COURT: All right. And so we will take our
         8
         9
            break.
                     It is now 12:31. We will break for 30 minutes or until
12:31PM
        10
             just past 1:00 o'clock.
        11
                        Remember, do not speak about the case, the people or
        12
             the subject matter involved. Continue to keep an open mind.
        13
                        We'll see you back in 30 minutes.
                        THE COURTROOM DEPUTY: All rise for the jury,
        14
12:31PM
        15
            please.
        16
                        (Out of the presence of the jury:)
        17
                        THE COURT: You're excused, Mr. Lechler.
                                                                   Please
        18
            watch your step going down.
                                          Thank you.
        19
                        Please be seated.
12:31PM
        20
                        Just before we conclude, I want to make sure that
             everything is in order with respect to the depositions.
        21
        22
             just have depositions remaining at this point for the defense?
        23
                        MR. BLUM: Yes, sir.
        24
                        There is one question I have for you on the
        25
             depositions.
12:32PM
```

	1	THE COURT: Yes.
	2	MR. BLUM: There was an exhibit that there was an
	3	objection to that you haven't ruled on.
	4	THE COURT: Which exhibit are you referring to?
12:32PM	5	MR. BLUM: 1378.
	6	THE COURT: And where would I find this exhibit?
	7	MR. BLUM: It was in the Durant binder, Your Honor.
	8	THE COURT: One moment.
	9	I'll let the parties know. I may have the binder
12:33PM	10	back in chambers. I'm not locating it out here.
	11	Is there anything else besides that, 1378?
	12	MR. BLUM: I don't believe so, Your Honor.
	13	THE COURT: All right. And otherwise, the parties
	14	have resolved the issues with respect to is it Mr. Dawson?
12:33PM	15	Who who raised the issue? It was you, Mr. Richard, I think
	16	as to Dawson.
	17	MR. RICHARD: We haven't had a chance to meet and
	18	confer regarding I think it was just this morning at
	19	9:00 o'clock, we got their counter designation. So we'll do
12:33PM	20	that over the lunch hour I'm sorry, Your Honor.
	21	Mr. Blum agreed in principle earlier today that any
	22	counter designations would be limited to context only. And so
	23	for some of their counter designations, we have no objections.
	24	So I'm hopeful that with that principle in mind, we can resolve
12:34PM	25	that issue.

```
THE COURT: All right. I'll let the parties know
         1
         2
            about 1378.
         3
                                  Your Honor, may I just for the record, I
                        MR. BLUM:
         4
            am -- we would normally object that it is not actually rebuttal
            because we didn't introduce any testimony on the issue. I'm
12:34PM
         5
         6
            just making the objection because I think it's proper, and I'm
         7
            assuming you're going to overrule the objection.
                        THE COURT: Well, I don't know why you're assuming
         8
         9
                   But what is the basis for characterizing this as
        10
            rebuttal?
12:34PM
        11
                        MR. RICHARD: Yes, Your Honor. We asked
        12
            Mr. Hokkanen yesterday about records he reviewed or did not
            review. And so that came out in their case. And Mr. Dawson
        13
            was their 30(b)(6) witness for Whittaker on that issue. And so
        14
12:34PM
        15
            we have seven minutes of him talking about his discussions on
            that topic. I think that's the only reference in that --
        16
                        THE COURT: Tell me how that's rebuttal.
        17
        18
                        MR. RICHARD: It shows that -- it responds --
        19
            provides a reason, because Mr. Hokkanen wasn't clear on why he
12:35PM
        20
            didn't review those. He didn't directly speak to Mr. Lardiere,
        21
            but this witness did.
        22
                        THE COURT: It's not -- it's still not clear how
        23
            it's rebuttal. So tell me what he -- what he said that you
        2.4
            think this is rebutting.
        25
                        MR. RICHARD: Well, both Mr. Dawson and Mr. Hokkanen
12:35PM
```

	1	gave testimony about the history and source areas at the site.
	2	And I had asked what records he had looked at, and he was
	3	rather vague on that. And this explains that the records
	4	weren't there for him to review and why.
12:35PM	5	So I think it's rebutting the notion that he did a
	6	complete and thorough review as part of his opinions.
	7	THE COURT: But how does that rebut that? It sounds
	8	like he did, except that there weren't documents for him to
	9	review, if I'm understanding you correctly.
12:35PM	10	MR. RICHARD: Right. But I think it underscores
	11	I guess the inference is if an expert says I reviewed
	12	everything I needed to review versus there were records that I
	13	could not review because they didn't exist and haven't been
	14	provided. So, to me, it goes to the weight of their testimony
12:36PM	15	that it was incomplete because a whole category of records
	16	THE COURT: Do you intend to use this for closing
	17	argument? If so, tell me what your closing argument point is
	18	going to be because it's still getting lost on me and I suspect
	19	it may get lost on the jury as well.
12:36PM	20	MR. RICHARD: Sure, Your Honor.
	21	It augments some of the other testimony already in
	22	the record on this point, that there were logs and daily
	23	operational records and the types of documents one would have
	24	as to where the hazardous substances, the TCE and the PCE, were
12:36PM	25	stored, used, and disposed of.

1 And it's Whittaker Corporation speaking to that 2 issue. And so had they called Mr. Dawson, I would have used it 3 in cross-examination, but they told me a couple of days ago 4 they weren't calling him. So I think it fairly rebuts the notion that their experts relied on the data, the data, the 12:36PM 5 6 data as they argued and counsel has argued. 7 So is it going to be a big part of my closing? No. 8 But it will be part of my closing, Your Honor. THE COURT: Let me see the portion that you're looking to designate, and I'll make a determination. 12:37PM 10 11 So proceed on the assumption -- although, this 12 doesn't reflect any inclination. But proceed on the assumption 13 that it's going to be admitted. And the only reason you're proceeding on that assumption is to give me the option so that 14 you then don't have to meet and confer. It's not a 12:37PM 15 16 predisposition, to say the least. All right. Also, I am going to want to hear a 17 18 I know we just got it, and I'll hold comment on it. But I'm going to need a response from the plaintiff on the 19 issue of the statute of limitations. 12:37PM 20 21 Also, I'm warning Whittaker that if I receive 22 another document in violation of a Court's order, I will 23 sanction counsel. I received, I believe, a supplemental brief 24 with respect to Mr. Alvord. And so I'll take a closer look. 25 But if, in fact, that is a supplement that was not invited by 12:38PM

```
1
             the Court, I'm going to likely want to hear from counsel who
         2
            has submitted it.
         3
                        MR. BLUM: Your Honor, that was the brief you asked
             for that we could do on the issue of property --
         4
                        THE COURT: My understanding is that you
12:38PM
         5
             supplemented that. I'm getting this information on the fly, so
         6
         7
             it may be inaccurate.
                        So you're saying that you didn't provide the Court
         8
         9
            with a further supplement? This was just simply in response?
                        MR. BLUM: Your Honor --
12:38PM
        10
        11
                        THE COURT: If that's the case, the Court
        12
            apologizes.
        13
                        MR. BLUM: I understand -- Your Honor, things have
            been moving really fast for everybody here.
        14
12:38PM
        15
                        I don't believe so, Your Honor. But if we did, we
             shouldn't have and there's no reason -- but I -- I confirmed
        16
             this morning that we only filed one.
        17
        18
                        THE COURT: It's entitled "Supplemental JMOL Brief."
                        MR. BLUM: It supplemented our original JMOL brief,
        19
12:38PM
        20
            Your Honor. It wasn't supplementing another one. That's why
        21
            we named it "Supplement."
        22
                        THE COURT: I understand. But on what ground did
        23
             you have the authority to issue a supplemental JMOL brief?
        24
                        MR. BLUM: I asked you yesterday if I could file a
12:39PM
        25
            three-page brief.
```

```
1
                         THE COURT: Oh, it's -- it's limited to that -- the
         2
             three pages the Court permitted?
         3
                         MR. BLUM: Yes, sir.
         4
                         THE COURT: All right. Then the apology stands.
         5
                         Thank you. We're in recess.
12:39PM
                         (Morning proceedings adjourned at 12:39 p.m.)
         6
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1
                     CERTIFICATE OF OFFICIAL REPORTER
 2
 3
    COUNTY OF LOS ANGELES
                             )
    STATE OF CALIFORNIA
 4
                             )
 5
 6
                I, MYRA L. PONCE, FEDERAL OFFICIAL REALTIME COURT
 7
    REPORTER, IN AND FOR THE UNITED STATES DISTRICT COURT FOR THE
 8
    CENTRAL DISTRICT OF CALIFORNIA, DO HEREBY CERTIFY THAT PURSUANT
 9
    TO SECTION 753, TITLE 28, UNITED STATES CODE THAT THE FOREGOING
10
    IS A TRUE AND CORRECT TRANSCRIPT OF THE STENOGRAPHICALLY
11
    REPORTED PROCEEDINGS HELD IN THE ABOVE-ENTITLED MATTER AND THAT
12
    THE TRANSCRIPT PAGE FORMAT IS IN CONFORMANCE WITH THE
    REGULATIONS OF THE JUDICIAL CONFERENCE OF THE UNITED STATES.
13
14
15
16
17
                          DATED THIS 2ND DAY OF DECEMBER, 2021.
18
19
                                     /S/ MYRA L. PONCE
20
21
                          MYRA L. PONCE, CSR NO. 11544, CRR, RDR
                             FEDERAL OFFICIAL COURT REPORTER
22
23
2.4
25
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